HOME GUARD

A HANDBOOK

By JOHN BROPHY

PARACHUTE TROOPS, ANTI-TANK WARFARE, OBSERVATION AND REPORTING, THE RIFLE, THE BREN GUN, THE LEWIS GUN, THE THOMPSON GUN, GRENADES AND 'MOLOTOFFS,' ROAD-BLOCKS, AMBUSHES, STREET FIGHTING, ETC., ETC.

HODDER & STOUGHTON 1/- net

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JOHN BROPHY

Author of "The Five Years: a history of 1914–1918," etc. etc., Co-editor of "Songs and Slang of the British Soldier"

LONDON
HODDER & STOUGHTON LIMITED

First Printed . . . . *September 1940*
Reprinted . . . . . *September 1940*
Reprinted . . . . . *October 1940*
Reprinted . . . . . *October 1940*
Reprinted . . . . . *November 1940*
Reprinted . . . . . *March 1941*
Reprinted . . . . . *April 1941*
Reprinted . . . . . *May 1941*
Reprinted . . . . . *August 1941*
Reprinted . . . . . *October 1941*

Made and Printed in Great Britain for Hodder & Stoughton Limited London
by Wyman & Sons Limited, London, Reading and Fakenham

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AUTHOR'S FOREWORD

LIKE many matters connected with the Local Defence Volunteers, this Handbook is the product of a race against time. Subject to this limitation, everything has been done to make it both as comprehensive and as correct as possible. My best thanks are due to Major-General P. C. S. Hobart, C.B., D.S.O., O.B.E., M.C., to Brigadier C. C. Foss, V.C., C.B., D.S.O., and to Major H. Sanderson, commanding officer of the Home Guard detachment in which I serve, for so promptly and kindly giving me information, suggestions, corrections and advice, as well as for reading various parts of the book in manuscript. I am further indebted to Major-General Hobart, who commanded the Tank Brigade 1933–37 and was Director of Military Training at the War Office 1937–38, for allowing me to draw on his specialised knowledge, with sundry quotations, especially in various passages of Chapter IV. None of these gentlemen is, however, to be held responsible for any errors which may have crept into a text necessarily produced in haste, or for my opinions, or for the informality with which these opinions are sometimes expressed.

JOHN BROPHY.

CHAPTER I

WHAT THE JOB IS

THOSE who are old enough will remember that in the years before 1914 nearly every magazine for boys published serial stories about imaginary invasions of Great Britain by German troops. Those invasions never came off. They remained imaginary. Even during the war of 1914–18 the idea of invasion seemed unreal, fantastic, because the French coast was occupied by a friendly power, and aeroplanes were neither sufficient in number, powerful enough nor reliable enough for troop transport on a large scale.

The days when invasion was only a bogey or an entertaining subject for a thriller are ended: not perhaps once for all, but for the immediate future. Every thinking man knows that, in his bones as well as in his mind, and more than a million and a quarter have taken active steps to meet the new situation: they have enrolled in the Local Defence Volunteers or, to give them Mr. Churchill's new baptismal name, the Home Guard. These men have a job to do, one of the biggest jobs in the history of this country, and they must learn how

to do it *while* they do it. They receive no pay or allowances or food unless and until invasion comes, when they immediately become full time troops. In the meantime, they give up their leisure by night and at week-ends in order that they shall be fit and trained to do the job thoroughly and well if invasion starts to-day, to-morrow, next week or next month.

The purpose of this book is to offer to any L.D.V., already enrolled or prospective, a practical outline of what may be expected of him. It is not written by a professional soldier (as certain informalities of outlook and phrasing will soon disclose) and technical military terms have been kept to a minimum. To "old soldiers" with a longer and tougher active service record than his own, the author apologises for his presumption, only offering in his defence the statement that he has taken advice before and during the writing, and that so far as he can discover no other competent writer has forestalled him. He hopes that while parts of the book may be familiar to those with military experience, some of the suggestions it embodies may stimulate a thoughtful preparation for a new kind of war. And for those L.D.V.'s who come fresh to military training, he suggests that this book be taken as a basis which will be more useful if reinforced by consultation with their own local officers and especially with any old soldiers in their companies: these men will not usually talk about

their experiences unless led on to do so, but they are unique store-houses of knowledge and wisdom. They won't have forgotten that they were novices themselves once, glad to take tips from others who had been through the mill. Ask them questions, and they'll supply illuminating answers.

The first thing, surely, for the L.D.V. to get a grip on is a general idea of the sort of job he and his comrades have to tackle now and in the future. It is to act as an *auxiliary* to the regular forces, a kind of fourth arm of defence with special duties. But that needs qualification: there is no fixed front line in war now, and no cushy jobs at the base offering ninety per cent safety. The place of the L.D.V. is not behind the Navy, the Army and the Air Force, but at their side. Indeed, if the enemy makes landings by parachute, troop-carrying planes or sail-planes (gliders), or if he raids inland, the L.D.V. in many areas will probably be the first troops to resist him. And secondly, although the job is defensive, defence often means taking the attack. More of that later.

Let us see where the country as a whole stands. The enemy may attack us from his own territory, or from Norway, Denmark, Holland, Belgium or France, or from all these places at once. The seas stand between him and us, and the Royal Navy commands those seas. We are not therefore in

such a difficult position as were the countries now over-run by the Germans. Our frontiers cannot be crashed through in an hour or two. We have also on the credit side the largest army this country has ever mustered under arms, with a nucleus of men already " blooded " in battle, and we have an Air Force which technically and personally has the whip hand of the Germans. These are grand cards, but they have to be played with care, with forethought, and with calculated boldness.

Whatever we do, we must not get the idea into our heads that our defences are impregnable. That was the mistake the French made over their Maginot Line. There is always a way of getting through or round any defences. There is also a way of stopping any such break-through, making the enemy rue the hour he ever thought of attack, and sending him back beyond where he came from. The Navy can and will sink enemy warships and transports: but the Navy cannot be everywhere at once, and some may get through. The Air Force can and will shoot down invading planes; but some will get through if they are sent in sufficient numbers. What the Navy and the Air Force together can do is to prevent the Germans landing sufficient troops and sufficient reinforcements and supplies to turn initial raids into a full scale invasion. Such enemy troops as are landed will be dealt with by the Army—and the L.D.V.

There may never be an invasion or even a big land raid on this country. Our preparations, in which the formation of the Home Guard plays an important part, have already, we may be sure, given the German High Command a lot to think over. An invasion of this country would be, to put it at its lowest, no picnic for the troops detailed to take part in it, and a failure would have an incalculable effect on Hitler's prestige in his own and in other countries. Those who have enrolled in the Home Guard can therefore legitimately pride themselves on having already done something for the defence of their country. And the more resolutely and intelligently we prepare ourselves to meet invasion, the less likely it is to happen: while if it does happen, the less likely it is to achieve success.

The function of the Home Guard is something new in military history. This is how it may be expected to work out, by and large. The enemy must bring his invading forces over the sea, in ships or by air. From what we know of his strategic outlook, he is not likely to make preliminary, tentative or experimental raids. When he comes he will come with the utmost force he can muster: he will put all, or nearly all, his eggs in one basket and hurl them at us. This does not mean, however, that invasion is to be expected only from one direction. In Poland, in the Low Countries and in France, as in 1914–18 and in 1870,

he showed his belief, and it is a sound belief, in a two or three pronged attack, the lines of advance afterwards closing together to surround important military centres. A German invasion may therefore be expected from the north, the south, the east and the west, simultaneously. There may be minor raids carried out by small forces, but these will be subsidiary to the main plan and intended to divert and confuse the British resistance. The principal attacks will be made by large bodies of troops supported by such tanks as can be landed from ships and planes and by the utmost possible weight of artillery and air bombardment.

Ships will be sunk, men will be drowned and shot before they reach the British coast; hundreds and perhaps thousands of German planes will be brought down. We know the strength and courage of our Navy and Air Force. But some ships may be able to put ashore infantry and perhaps guns and light tanks; some planes may be able to land parachute and other troops, and some may be able to drop bombs and to machine-gun points of resistance. The spearhead of the invasion, not only at the landing-places, but during the attempted advances inland, will be the bombing 'plane and the low-flying fighting 'plane equipped with machine-guns or pom-poms. This means terrific outbursts of noise, unimaginable to those who have not yet encountered them. It is only a comfortable

delusion to expect anything less, supposing invasion comes, than total warfare on the grand scale.

News will be hard to come by. Rumour will have its fling. Nerves will be tested by horrible sights and sounds, not only explosions and gunfire, but terroristic noises from dive-bombers and "whistling" bombs, and probably from special sirens fitted to enemy 'planes, by sustained uncertainty, and by lack of sleep. Few people in the whole country will know all that is happening or even all that has happened within the preceding few days. The Navy will be heavily engaged with enemy warships and transports, the Air Force will be bombing convoys and ports of embarkation, and at the same time fighting in the British skies against bombers, fighters and troop-transport 'planes. The Army will be repelling landings on the coast and air-borne landings inland. The general public will know very little about all this. And these activities will have to be co-ordinated. Responsible authorities will be at grips, in difficult circumstances, with the problem of offering prompt defence and counter-attack and yet not being taken in by the enemy's calculated deceptions. Large forces must be moved only to oppose large forces. It will not be easy to maintain communications. Food supplies will be local. Newspapers may not be delivered. B.B.C. broadcasts will have to be cautious for fear of giving away useful information to the enemy.

Any quiet country district or any highly organised town or city may in a moment become the scene of an air bombardment or of rapid and confused fighting between two armies.

Out of this apparently chaotic state of affairs the means of decisive victory can and will be established. For all this has been foreseen. Supposing that at certain places on the coast or in the interior the enemy succeeds in gaining a footing, without the command of the sea and air he will not be able to obtain the reinforcements and supplies he must get to exploit his momentary success. Instead of being the attacker, he will quickly become the attacked. The hunter will have to learn what it feels like to be hunted. If he contrives to land two hundred thousand men in this country he will have done better than his highest hopes predicted. And two hundred thousand men, with no safe communications behind them and no heavy artillery, can soon be brought to defeat and surrender by the British troops now in this country.

Where in this plan of campaign does the L.D.V. come in? If the regular troops can deal with so large an invading force, is there any need for a Home Guard? These are reasonable questions, and deserve a reasonable answer. The regular troops, with their artillery and superior infantry fire power, must be reserved, apart from the initial

coastal resistance, to be used with crushing and decisive effect against the enemy's main forces. What those forces are and where they are operating cannot be known at once. The regular troops must therefore be retained in comparatively large formations. It follows that they cannot be used to guard every square mile of the country. Nor must they be moved in their large formations until it is reasonably certain they can take on an adversary of their own size. If you rush a division of ten thousand men or more forty miles away, and when they get to where you have sent them they find only a hundred of the enemy, time and energy will have been wasted, and in the meanwhile a much larger enemy force elsewhere may be left free to do a lot of damage.

The regular troops cannot be everywhere at once—but the Home Guard can! In every village, every town and every city of this country there are small formations of local men, a large proportion of them veterans of the last war, part-time, unpaid volunteers who become twenty-four-hour-a-day soldiers the moment an invasion begins. This means that wherever enemy troops appear there will be trained and armed men to observe their actions and to offer resistance. The L.D.V. is above all, „" the man on the spot." He and his local formation will be able to shoot or capture any small parties of the enemy and to call up

sufficient reinforcements of regular troops to deal with larger forces. He may not be so heavily armed as his opponent, but he possesses the inestimable advantage of knowing the ground over which he fights. He is first of all an observer, a scout, sending in precise reports of enemy appearances and actions as promptly as possible. In certain circumstances, and where he has been specially trained, he may become a skirmisher and a sniper, harrying the enemy, following him at a distance, making his life miserable, destroying his confidence, preventing him from moving freely. More probably the Home Guard, united in sections and platoons, may be used to man local centres of defence and attack, making use of fortified positions prepared in advance and technical methods of fighting, most of which will be discussed later in this book.

Using this outlined forecast of an invasion as a basis, it should now be possible to fill in a realist picture of the task confronting the L.D.V., the job for which they are now preparing themselves while they carry on their night guards and patrols. In certain districts, possibly in the majority, there will be nothing for the L.D.V. to do except watch and wait. These detachments may never see a German until that German is behind barbed wire. In other districts, round the coast, in large towns and heavily garrisoned areas, the L.D.V. may be called on chiefly to relieve regular troops of guard

and picket duties. But in other places—and no one can say which they will be—the L.D.V. can look forward to very active service.

Let us for a moment imagine ourselves in a village which suddenly becomes a centre of conflict. No one knows exactly what is happening even a few miles away. There will be alarmists convinced that the Germans already hold London. Some of the villagers will behave better than others. There will be reconnaissance flights by German 'planes overhead, with some machine-gunning and a few bombs dropped. There will be people wounded, sick with shock, perhaps some killed. The L.D.V. will all be mustered at their posts, with arms and ammunition and rations. One of them will spot the first parachute troops dropping from the sky or perhaps troop-carrying 'planes coming down and letting their field-grey cargo loose. The patrol leader will send back messengers to headquarters, as his information grows, and the local volunteers can then be assured that stronger assistance will be soon on the way to them.

Or the landing may have been made in another district and may spread towards this village we are considering. Or, again, by luck and skill, the enemy may bring light tanks or may commandeer motor-cars and motor-cycles, and with them raid inland from a port, much as he pushed his armoured

columns along the roads of Northern France. As soon as a superior force of regular troops is gathered against him, his advance will come to a full stop. In the meantime it is up to the local L.D.V. to try to furnish that full stop or at least to hamper and delay the raiding column as much as it possibly can. To effect this end the enemy will be watched and sniped all the way. He will not be allowed to move far along any road without being held up at a defended barrier; and if he turns back to leave the road for the fields, he will again be sniped and harassed.

All this, it must be emphasised, will be done by men who are ignorant of what is happening except to themselves, who will soon be tired and dirty and out of breath and excited; but these are the conditions to which they have been trained, and some of them will have known this side of active service in another war. They will do their job. Some may be killed, some wounded. They may succeed in holding up the enemy outside or even in the streets of their village. Or superior numbers and armament may force them to give ground. Then the enemy makes his way to the next village, and there the same grim, stubborn resistance meets him. At best he employs a whole day in covering a few miles, and as soon as night falls he must seek cover of some sort, for the local volunteers will still be after him. He will be hungry, but lucky if he can eat. He will be tired, but he will

not be allowed to sleep. And at the end of this ordeal, if we suppose him to be able to push his raid for twenty-four hours, he will have to face an equal if not a superior force of regular troops with the guns and tanks and aeroplanes to bring his raiding career to an end. He will have done some damage, raised some alarm, but he will suffer for all the harm he does, and, thanks to this endless network of obstinate local resistance covering the whole country, he will not conquer Britain.

This, then, in a general fashion, is what is meant by describing the function of the L.D.V. as something new in military history.

Part of the weakness of France, confronted with invasion, came from the fact that so many men, of all ages, had been "called up" and embodied in the large formations of the regular Army. The towns and villages, behind a line which did not hold, were denuded of the means of local resistance. The Home Guard network ensures that this mistake will not be made here.

The enemy's plan for the invasion is, we may be sure, worked out to the last detail. That is what we expect, and that is what we shall get. Nor should we rely on it being a rigid plan: the German generals are clever and up to date; they will provide alternative courses of action for their subordinate commanders, they will leave room for

local successes to be exploited according to the needs of the moment. But an immense amount of detail must be planned ahead. The invasion can fairly be thought of as a vast machine, its parts interlocking by careful timing. After every allowance is made for variations and flexibility, such a machine is still very vulnerable: smash one part of it and you have a good chance of putting the whole badly out of gear. Smash several parts of it, and you take away most of its efficiency. Any invasion of this country must work to a complicated plan if it is to have any chance of success: and, because it is complicated, it can be brought to naught. If the L.D.V. does nothing except to hinder and delay the movements of landed troops, to force them to fight their way bitterly from one village to another, to turn from the roads to the fields and then, in despair, to turn back to the roads, it will have done enough to ensure that the invasion machine breaks down. The Navy, the Army and the Air Force will see to the rest of the job.

To sum up. The Home Guard will function by watching for the enemy and reporting his appearance immediately; by keeping him away (using various means) from petrol, food, water, the civilian population, and places he would like to damage; and, finally, by resisting his advance along every road and elsewhere as opportunity offers. The plan to which the Home Guard

will work, in opposing the German plan of invasion, is part of a larger scheme involving all the armed forces. Circumstances permit it to be less rigid and less centralised than the German plan, and therefore less likely to break down. Some of the principles and some of the details of the Home Guard plan must be kept secret, but by and large it is not difficult to see the Local Defence Volunteers in most districts performing simultaneously or successively the following functions:

(*a*) The protection of important points from sabotage and attack.

(*b*) Watching the skies and reporting the time, place and size of any enemy landings.

(*c*) Immediate attacks delivered on any parties of enemy troops landed not in overwhelming numbers. This may be compared to the A.R.P. use of sand and stirrup-pumps against incendiary bombs, preventing small fires from growing into big ones.

(*d*) In the event of the enemy being able to move large or heavily armed forces into any area, the Home Guard will fight in and around its fortified posts in towns and villages and on roads, by day and by night, so that the enemy has no freedom of movement until his short raiding career is brought to an end by regular troops.

CHAPTER II

RESISTING THE INVADER

Observation and Reporting.—The Home Guard is an auxiliary force with special duties, organised only in small bodies, and its first job when enemy troops are sighted, whether they come from the air or over roads or fields, on foot or in vehicles, is to make sure that a useful report reaches higher authority. The Patrol Leader should be responsible that every man under his command knows where and how such reports should be sent, and what information they should embody. He should impress upon his men the urgency and importance of this duty. Comparatively few L.D.V. detachments can expect to run up against invaders in such small numbers as may be immediately overwhelmed. And whether the decision taken is to attack at once, or to harass until reinforcements arrive, a report should be sent to the appropriate authorities immediately.

Army headquarters depend on the promptness and accuracy of such reports for their ability to

estimate the strength and direction of attacks. As long as they can be sure of such reports coming in, they can send the right number of regular troops, neither too many nor too few, to deal with the situation. Take an example. If a mere half-dozen parachute troops are dropped in a certain field, and the L.D.V. patrol leader concerned omits to report it promptly, the news may reach headquarters in a garbled form from a civilian source, and a company or even a battalion of regular troops may be sent away unnecessarily, wasting their time and patience, causing confusion, and damaging confidence, at a time when they may be needed elsewhere.

Reports should be sent direct by telephone whenever possible; if not, a cyclist or motor-cyclist should be sent to a pre-arranged telephone station. He should be given a brief *written* message to read into the telephone, and he should know by heart the opening phrase which will secure the operator's attention and obtain priority for the call. This first message should state:

1. That enemy troops have been sighted and the method of their approach, i.e. by parachutes, troop-carrying planes, gliders, on foot, or in tanks, armoured cars or other vehicles.
2. The approximate number of the troops or

of the land vehicles in which they are carried.

3. The time at which they were sighted.
4. The place at which they were sighted. This should be given, if possible, by map reference, and the distance and direction from the nearest village or prominent landmark shown on the ordnance map. It is useless to report "in Farmer Giles's wheatfield" or "two hundred yards past Sir Marmaduke Malmsey's lodge gates." These directions would be understood only by local inhabitants. A good direction would be: "A mile and a half north-east of Sheepwold village approximately" (here give ordnance map reference, identifying the square by the numbers at the side of the map, and the numbers at top and bottom), "between corrugated iron barn and chalk pit."
5. State if the landing or approach of troops is continuing.
6. State what action is being taken, i.e. "observing," "attacking," "opening fire."
7. End with the name of the local L.D.V. formation, the patrol leader's name and rank, the name of the L.D.V. post from which the report comes, and the time the message is dispatched.

An example of such a report in full would run: (Priority wording first): "Enemy parachute troops numbering about forty observed landing eight-fifty pip emma on hill three miles east Hampton parish church E. 578, N. 4820 aaa Landing continues aaa Am observing aaa From Patrol Leader Brown at Old Bridge Post, 8.52 pip emma." (See Diagram A, back cover.)

The "signalese" terms, designed to prevent confusion on the telephone, should be learned: ack = a, beer = b, don = d, emma = m, pip = p, esses = s, toc = t, vic = v, aaa = a full-stop.

After an interval, which should not exceed half an hour and may be only five minutes, the patrol leader should send back another messenger, to confirm the first report if by mischance it has not got through, and to amplify it, with similar map references, stating any further reinforcements or activities of the enemy, and what steps the patrol leader is taking to deal with them. After the opening phrase in the agreed wording, to secure priority, this report should state clearly that it is the *second* report from the same source. If circumstances permit, similar reports should be despatched at intervals until the L.D.V. have dealt finally with the invaders in their vicinity or until reinforcements have arrived from the regular army headquarters.

Keeping in Touch with the Enemy.—The patrol leader, or any superior officer of the L.D.V. who has arrived, must make up his mind quickly whether he is in a position advantageously to attack the enemy. Promptness of decision and speed of action are all-important. Parachute troops, for example, will probably be armed only with automatic pistols and hand grenades when they float down to earth. If the same procedure is followed as in Holland and Belgium, their machine-guns will be dropped separately by parachute in a container not unlike a dust-bin, and it will take them nearly ten minutes to collect themselves and unpack their machine-guns. In that ten minutes they are intensely vulnerable. If the L.D.V. can open fire, using what cover they can, from a range of less than five hundred yards, they should do so immediately. The enemy should be taken by surprise, but not until the L.D.V. are at close range—two hundred yards is the best.

But two things must be borne in mind. The advantage of the superior range of the rifle should not be thrown away: two hundred yards is the ideal range for the attack, when every shot should get home and yet the enemy be unable to return effective fire. And one or two men should be set to keep watch on the surrounding country. There is no point in shooting up the container

landed from one plane and cornering its parachutists, if another body of troops in the next field but one is getting its machine-guns ready and preparing to wipe out the oblivious L.D.V.

What the patrol-leader or other commander has to decide, then, is whether he has sufficient men to offer immediate direct resistance, by taking the offensive. He should keep his head clear, and make up a plan on the spur of the moment to meet the situation. Even if it prove to have defects it will be better than no plan at all or a plan arrived at and acted on too late. The patrol-leader will have no time to debate the question or to consult, and he will be wise to think out beforehand the general principles of what he will do in certain circumstances. Then he will only have to make up his mind which method he will apply to the situation as it arises.

He should not miss any chance of knocking out any small detachment of the enemy, and he must take that chance immediately. On the other hand, he may not be serving his country's best interests if he gets himself and his men wiped out in a glorious fight against odds. He should never take on, for a direct attack, superior numbers or equal numbers with superior armament (such as light tanks or machine-guns) unless, in the interests of strategy, he receives orders to do so. And

unless something goes wrong with the German plan of attack while the troops are still in the air, it is not likely that the landing will be in small numbers. The business of the L.D.V. is to be soldiers first and heroes afterwards, and, from a military point of view, live heroes are usually better than dead ones. The art and craft of war consists very largely of refusing to fight on the enemy's terms and in seeking—and making—occasions for fighting him on your own terms, when the advantage is with you. But you must realise quickly when you do possess that advantage, and act on your knowledge.

The patrol-leader, then, knowing that he has sent off his first report and that, allowing for the delays and mischances inseparable from war, regular reinforcements will soon be coming to his aid, may decide that he cannot reasonably expect to round up the enemy then and there. He should at once make it clear to his men that they are to function as scouts, skirmishers, and mobile snipers, or, perhaps, merely as watchers keeping themselves out of sight. The enemy will be kept under observation continuously, from a distance and with every use of natural cover. If he possesses means of rapid transport, it may be better for the L.D.V. not to open fire, which would give their position away and expose them to a rapid and possibly disastrous attack. All this presupposes that the

enemy has arrived in the daytime or in bright moonlight. In darkness, it should be possible for men who know the country well (as foreigners cannot possibly do, however carefully they have been trained in map-reading) to get in close and pick off many of the enemy troops.

If the enemy is on foot or has only bicycles at his disposal, he should be not merely stalked but sniped. He should be made to feel that his life is every second in danger, that every time he moves or stands up a bullet is going to zip close to him if not into him. If he shows a desire to move off in one direction, the best shots should be detailed to shoot down the moving men and encourage the others to stay put. Distance should be kept and fire should not be wasted, but with cool direction casualties should be inflicted and the enemy detachment prevented from moving freely about to secure information or to perform acts of sabotage.

The plan of action, then, for an L.D.V. detachment finding enemy troops in its area, may be summed up thus:

(*a*) Attack, attack quickly, and put the enemy out of action.

(*b*) If this is not possible, harass him from two hundred yards range, using cover, and keep him "pinned down," unable to move for fear of further casualties.

(*c*) If the enemy's numbers or armament give him an undue advantage, stalk him. Keep in touch with him at all costs.

(*d*) In all circumstances send frequent brief reports to headquarters.

Resistance by harassing and sniping gains valuable time and creates a moral ascendancy. It may not, however, be effective in holding up a large body of determined troops or troops protected by heavy arms or armoured vehicles. Once this situation is clearly established, the patrol commander's best course is probably to detach a few scouts to observe and move the rest of his men as rapidly as possible in a withdrawal towards strong points previously prepared, and get ready there to make it hot for the attackers.

The means of holding these strong points (which are discussed in *Defence Works*, pages 57 to 68) will vary with their siting, with the local defence scheme, and with the situation as it develops. The strong point may be a trench, a road-block, a breast-work constructed of sandbags or other material, a brick or concrete "pill-box," or some kind of permanent building adapted and fortified for the purpose. It should have been chosen and prepared with two purposes in mind, in addition to its function of protecting its defenders: it should give a good field of observation and fire,

putting the attackers at a disadvantage, and it should be so sited that the garrison can withdraw from it in good time and without unduly exposing themselves, so that they can, under irresistible pressure, carry on the fight elsewhere.

There may be occasions when it is legitimate for men to hold their position until they are put out of action or surrounded and without ammunition. Unless he receives specific orders to this effect, however, the patrol leader should plan to effect a further withdrawal when necessary (but not before) and so rob the enemy of a local victory. In planning this withdrawal he should never forget that it will almost certainly be observed and perhaps interfered with from the air. A communication trench properly traversed (or broken into frequent bays) provides useful cover from air attack, but except in certain areas such trenches will not be extensive. The patrol leader should therefore be prepared to withdraw his men, if necessary, not along exposed roads or over open fields, but through houses, narrow lanes, woods, and ditches or watercourses sheltered by hedges.

This is to anticipate an unpleasant emergency. Having got his men to the strong point, the patrol leader must first make up his mind to fight from it. He will at once detach a messenger to take back a report on his new position and the movements of

the enemy since the last report. He will encourage his men to cool down, get their breath, replenish their ammunition if necessary, and steady their eyes. If enemy advance scouts appear in the distance, he will name two men, good shots, to fire at them. If a substantial body shows itself, he will give the fire orders for all the men in the strong point to open fire at a range which should have been previously selected and tested. He will remember that rifle fire is usually wasted on the steel of tanks and armoured cars unless it can be delivered at very close quarters against the track. He will not line up his men behind a road block but dispose them in concealed positions beside it or overlooking it, and he will have certain men, chosen for steadiness of nerve and accuracy of aim, lying in wait (beside the road, twenty yards or so in advance of the strong point, and out of the line of fire from the riflemen) with " molotoff cocktails " ready to lob on to the enemy vehicles. His riflemen will be so placed that no man's fire endangers that of another man in the same post or any other post; and his bombers will be lurking where the burst of their thrown grenades can harm only the enemy.

These are the fundamental rules, and if they are observed the strong point, manned with courage and skill, should be able to hold off quite a number of attacks. If the enemy is delayed only an hour,

that is good work done, and the longer the delay the better for the British defences as a whole. Faced with determined opposition, the enemy may decide to draw back along the route he has come by, or he may seek a way round on either or both flanks. If he chooses one of these two courses a further report should be sent to headquarters, and he should again be stalked and sniped. Heavy fire should be reserved for heading him away from places where he may seize supplies or means of transport or where he may be able to carry out acts of sabotage.

If, however, superior numbers or armament enables the enemy to burst through or past the strong point, or if he inflicts such casualties that the patrol leader judges further defence to have a poor chance of success, the first opportunity should be taken to withdraw from the position. In coming to such a decision, there is no single or golden rule to be relied on. It is obviously better to stay and fight on, at whatever cost, than to withdraw with the enemy at close quarters, or to withdraw along a route open to heavy fire. The patrol leader must use his own common sense tempered with a fair amount of caution. He must fight hard while fighting shows a likelihood of profit, and after that remember that his men are auxiliary troops and of more use to the country alive than dead.

Mobility.—Just as veterans of the South African War were sometimes at sea in the 1914–18 war, so those who fought twenty odd years ago may find some difficulty in adapting their ideas to the kind of war they must now prepare for in this country. 1914–18 on the Western Front was mostly trench warfare, which is a variation of siege warfare. To gain a few miles of often worthless mud cost hundreds of thousands of lives. Movement in the forward areas was almost entirely below ground level and by night: an attack in daylight was foredoomed without a vast artillery barrage, and often with it. A double line of trenches separated the two armies, and a man was rarely in doubt which was the front and which the rear, and in which of the two places he might expect the enemy.

The modern tank division and the troop-carrying plane have, so far as we can at present judge, put an end to all that. The soldier of to-day must be prepared not to garrison an intricate trench system as highly organised as a big city, but to move here and there at speed (if only, like the Home Guard, within his own small district) and to deliver and repel attacks in any direction. Instead of two armies set out like the chessmen before the game begins, war begins to look like a medley of small conflicts, never static for a moment, made three-dimensional by air power, with no guarantee that any area involved is free from enemy troops or the

civilian population. Members of the L.D.V., therefore, have to get it into their heads that fire from their rear may come from the enemy and not from someone on their own side who has lost his bearings or his responsibility. They must think of "the front" as all around them and up above them. However decisive a day's or a night's victory may seem, it will not give final possession of the ground held unless immediate steps are taken to oppose further assaults from any side. On the other hand, the loss of a trench or other fortified position must not be taken as disheartening, if the enemy has been made to pay heavily for what should prove to be only a temporary gain. On the whole, they are wise men who live to fight another day, provided they do fight and do not necessarily wait for the morrow to start the fighting.

The members of the Home Guard are free citizens of a free country, and in wartime at least every inch of it is theirs to occupy. If they are driven from one place, they can always move to another, and use it to assure the enemy that he, not being a citizen, has no right to be where he is. Knowing the ground, they can get far more military advantage from it than any strangers, no matter how well trained they may be. In fighting operations, to take the offensive, if possible in accordance with a prearranged plan, should be the first watchword of the L.D.V., and after that—mobility.

Knowing where they are, surrounded by friends, they have the power of making rings round lost, ignorant and bewildered invaders, like a scientific boxer darting in and out of the guard of a slower opponent.

But mobility is a means, not an end. Every movement in attack or defence should be made for a purpose, and so far as circumstances and shortness of breath allow, the patrol leader should explain his intentions to his men. Reason makes its demands even in war time, and men will fight harder to further a rational idea than in obedience to an order they do not understand.

Movement, in the sort of war we may expect from invading troops coming in masses or in raiding columns, may often be fairly free, by bicycle or car or lorry along roads. At other times, it will have to be done on the foot and the belly, under fire. With this in view, patrols should be exercised in giving each other covering fire in advance or withdrawal, as set out on pages 123 and 124 of Chapter VI. There is no need to aim at a parade ground precision in such exercises: the chief thing is to see that the two patrols or sections do not draw close together as the movement proceeds, as this may lead to an excited man putting a bullet into one of his own comrades. Full advantage should be taken of natural cover,

and there should be no unnecessary movements by the covering party. It is usually wise, in a "garden countryside" like ours, not to proceed over the open at all if there are ditches or sunken lanes available; one patrol, stationary in such shelter, should be able to give covering fire to another patrol moving along another ditch or lane.

Mobility, skilfully used, can transform many situations and save a number of lives—and while "safety first" is a poor motto for a soldier, safety is always a good horse to back for a place.

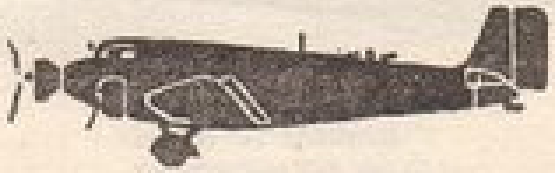
CHAPTER III

THE WATCH ON THE SKIES

AGAIN it must be emphasised that the first duty of the Home Guard, in point of both time and importance, is: Observation and Reporting. It is a twofold duty, and unless both parts of it are carried out precisely, and promptly, the enemy cannot be counter-attacked as he ought to be, and the country will suffer. The enemy may approach the district of any L.D.V. formation by land, and in the first hours of an invasion this approach may not be expected. The whole landscape should therefore be kept under constant, close survey at all times.

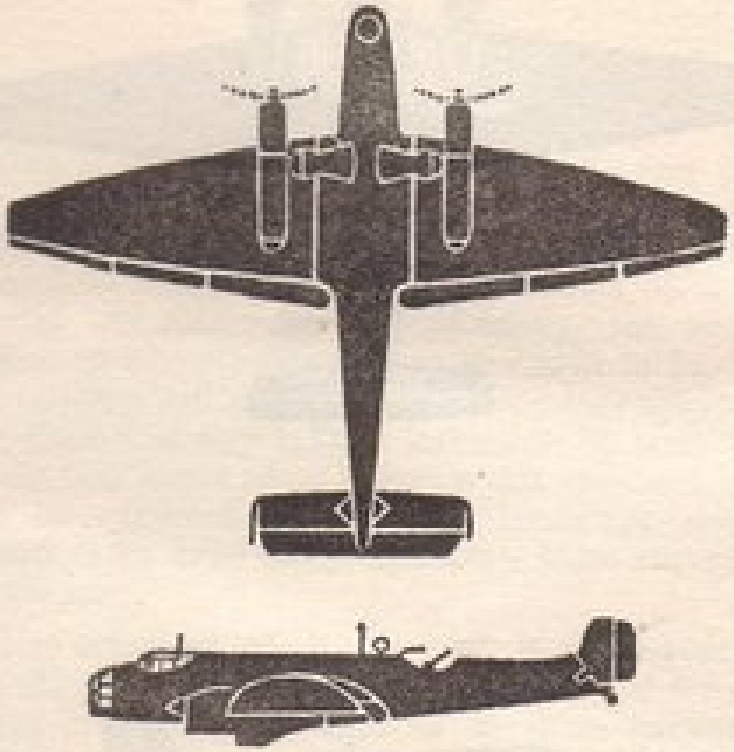
The principal watch, however, is to be kept on the skies for enemy aircraft, especially for aircraft flying low either to land or to drop parachute troops. This is done from observation posts or from guard posts placed on vulnerable points. Enemy aircraft may be recognised by their shape and by their swastika markings, though these may be obliterated or false markings substituted. They will be either (*a*) troop-carrying 'planes, (*b*) bombers

DIAGRAM B



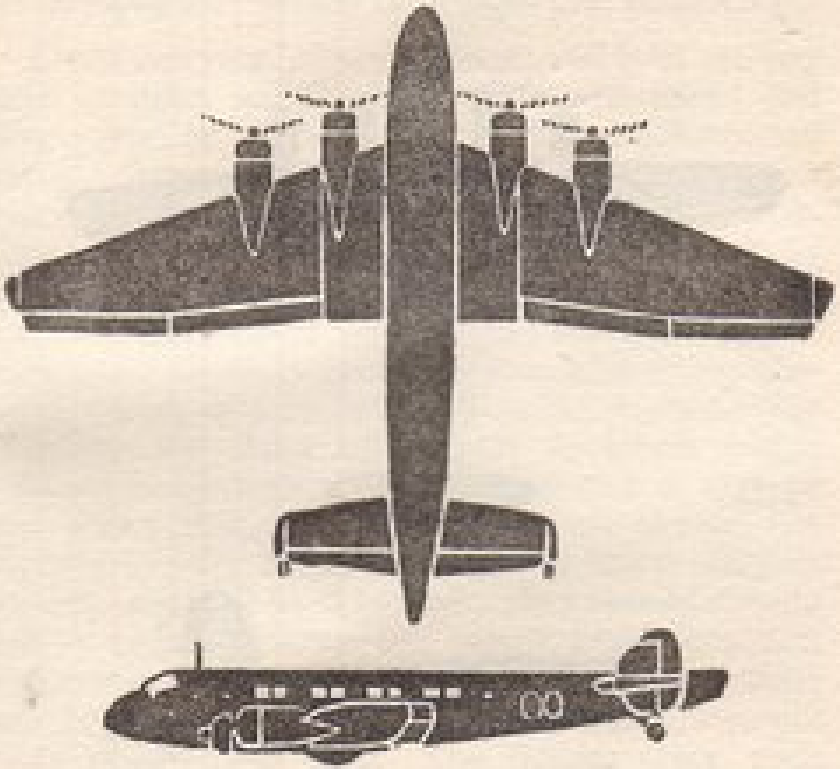
GERMAN TROOP CARRIER
JUNKERS JU 52
(*From Official Chart*)

DIAGRAM C



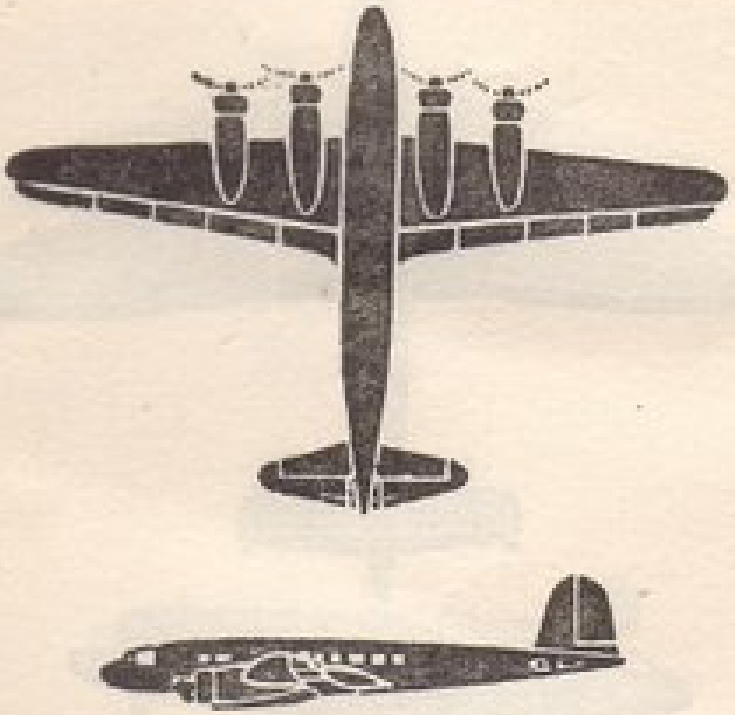
ENEMY TROOP CARRIER
JUNKERS JU 86
(From Official Chart)

DIAGRAM D



ENEMY TROOP CARRIER
JUNKERS JU 90
(From Official Chart)

DIAGRAM E



ENEMY TROOP CARRIER
FOCKE-WULF 200 "CONDOR"
(From Official Chart)

temporarily used for parachute-landings or (*c*) sail-planes, larger variations of the glider. Diagrams B, C, D and E show the principal types to be looked for. These diagrams should be studied and memorised.

Troop-carrying 'planes. These will land on any field or open space which offers a hundred and fifty yards or more of fairly level, unobstructed going. They may attempt to land on smaller spaces, even at the risk of crashing the machines. Any number from half-a-dozen upwards may be expected to take part in the same landing. The infantry carried will immediately leave the 'plane and, being specially trained troops with formidable arms, which may include light tanks or collapsible bicycles, will move off quickly to attack places selected in advance. As a general rule it may be laid down that L.D.V. detachments should not attempt to offer direct resistance to troop-carrying 'planes once they have landed: they should remain out of sight but keep the enemy under constant observation. But the duty of sending in immediate and precise reports in such circumstances becomes more urgent than ever. The regular army, with artillery, tanks and machine-guns at its disposal, can deal drastically with enemy forces landed by this method.

Parachutists.—Ten is the smallest number likely to be dropped at once. Some 'planes can drop

thirty parachutists. Usually there will be several 'planes engaged in the landing operation, and they will endeavour to drop all the parachutists close together. The 'planes will fly low, at about three hundred feet, or rather higher, so that the parachutists will spend the minimum time in the air. They will also fly slowly, perhaps with their engines switched off. The cylindrical container in which the parachutists' more formidable arms and ammunition is carried, will be sent down separately, also by parachute. It may look rather like a dust-bin. Sometimes a number of dummy figures, stuffed uniforms intended to be taken for real men, may be landed among the parachute troops, or the 'plane may drop nothing except such dummies. This is a ruse to set up confusion and misgiving, or else to divert British troops from a more important landing made elsewhere in the same district. It is vital, therefore, that the L.D.V. should accurately—and quickly—distinguish the dummies from the men, and include this observation in the report sent in at once.

The time most favoured by the enemy for making parachute landings seems to be the half-light period at dusk or dawn, but, while vigilance may be intensified at these hours, it should not be relaxed at other times. When air-fighting is going on, it is likely that British air crews may also be forced to make parachute landings. Special pre-

cautions should be taken to ensure that they are not fired on and that misleading reports are not sent in. A few broad distinctions may be made. British parachute landings will not normally be made from a 'plane flying low. If the 'plane from which British parachutists drop *is* flying low, it will probably be seen to crash within a minute or even a few seconds. And from a British fighter not more than two parachutes will descend; from a British bomber not more than six. It should also be remembered that "friendly" 'planes containing French, Polish, Dutch, Belgian and Norwegians may be forced to drop their crews by parachutes; if less than six come down, give the parachutists the benefit of the doubt, even though they don't speak English. Keep them covered from a distance, and march them off for interrogation.

Enemy parachute troops may be looked for (*a*) in their own uniforms, (*b*) disguised in British uniforms, (*c*) disguised in civilian dress to act as spies and sabotage agents. Their numbers and their behaviour should give them away if their intention is to pass themselves off as British troops. If they come in civilian disguise they will almost certainly be dropped in darkness. Genuine clergymen, nuns or farm labourers are not going to descend out of the night sky, and the pretenders should be promptly and suitably dealt with. The

author of this Handbook has a "hunch" that adolescent enemy agents may be dropped in the uniforms of Boy Scouts or Sea Scouts.

Enemy parachute troops in their own uniform can be recognised quickly from their appearance. A typical German parachutist is shewn in Diagram F. He has high boots laced at the sides, grey loose trousers and tunic with a kind of grey-green overall, gauntlet gloves, a close fitting steel helmet, and a belt to which is attached a revolver or automatic pistol, two haversacks, a water-bottle and a gas-mask Other equipment is also fastened to him. Any L.D.V. seeing a man or men thus garbed will know what has happened and will act accordingly. But it is well to keep an open and alert mind. Enemy parachutists may be garbed and equipped, if and when they try to land in this country, very differently from when they operated in Holland, Belgium and France. The container, dropped at the end of a separate parachute, may hold: rifle, stick-grenades, anti-tank rifles, machine-guns, heavy or light, ammunition, sticks of dynamite or other explosives for sabotage.

Landings by Sail-planes.—The sail-plane has no engine: its approach will therefore be silent. It can gain height and can be navigated by taking advantage of air currents. It is large and may carry as many as six lightly armed men, or it may

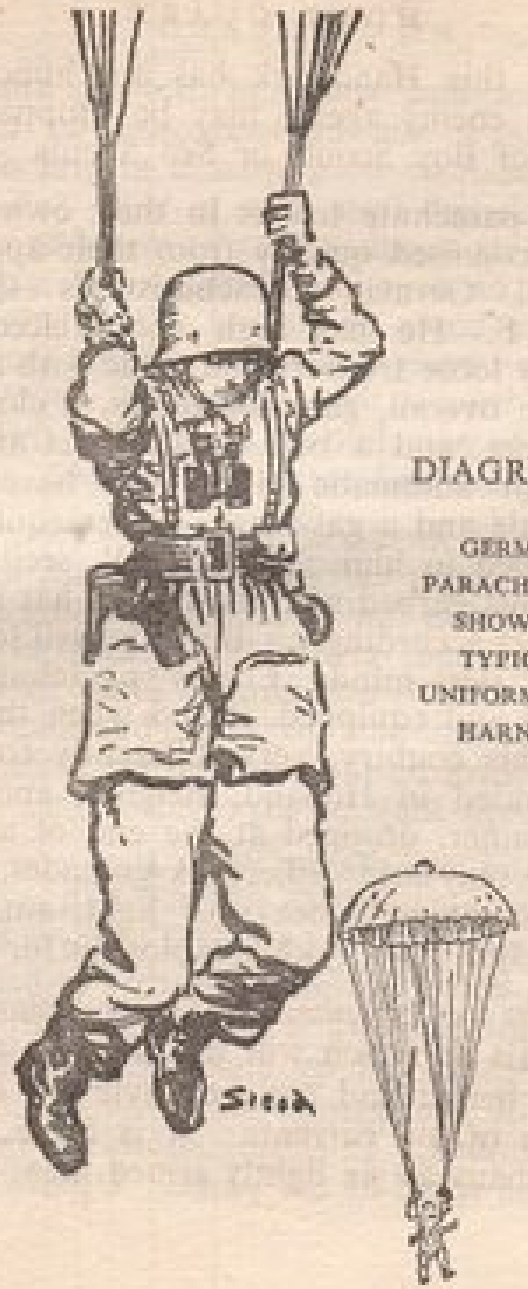


DIAGRAM F

GERMAN PARACHUTIST, SHOWING TYPICAL UNIFORM AND HARNESS

carry a pilot and stores of heavier arms and ammunition. It can be recognised by the fact that its breadth or wing span is several times as great as its length from nose to tail. Sail-planes, four, five or six together, may be towed by engined planes near or over the British coast, and then cast loose to come to ground. They may glide for as far as twenty-five miles. When they come down, the troops they carry will immediately assemble, like parachutists, and gather their arms and ammunition and prepare for action.

Resistance to Air-borne Invasion.—Troop-carrying 'planes, 'planes carrying parachutists, and sail-planes whether in tow or cast loose and gliding to a landing ground, are all vulnerable to British aircraft and British anti-aircraft fire. In this the L.D.V. have no part to play, but such action should put them on the alert and point the way to where landings may be expected.

'Planes and sail-planes when they come down low are also vulnerable to rifle fire and even more to machine-gun fire. At a height of three hundred feet or less, and overhead or nearly overhead, they should be attacked while still in the air, not by isolated rifleman but by small bodies under the command of the patrol leader or other officer giving fire orders. In aiming allowance should be made for the speed of the 'plane. Usually the aim

should be at twelve degrees ahead of the nose of the 'plane, twelve degrees being roughly the distance between the forefinger and the little finger when the left hand is held at arm's length in front of the eyes, with the fingers spread wide. This method of calculation should not be used, of course, at the time of action: the L.D.V. should learn to judge the degree by practice beforehand.

Sail-planes should be fired on all the way down, but without haste and with a steady aim. Parachutists should also be fired on, at a suitable close range not exceeding two hundred yards, while they are still in the air. Shots should not be wasted on dummies, or on the silk or cords of the parachute which may be pierced many times without losing their power of suspension.

When parachutists leave the air and come to land they are cumbered by their harness. They are excited, bewildered, perhaps a little shaken or hurt. They are unwanted strangers in a countryside they cannot know exactly. Moreover, until they have found their container, unpacked it and distributed its contents, they are armed only with revolvers or automatic pistols and perhaps a couple of grenades each man. It takes them up to ten minutes to become a formidable force. If the L.D.V. detachment, therefore, can get quickly to within a range of two hundred yards, and if it is not inferior to the enemy troops in numbers, it

should attack at once, with rifles or a machine-gun if one is available. Speed on such an occasion is vital, but the first duty of the patrol leader (or whoever is in command on the spot) is still—precise and prompt observation and report, as set out in detail on pages 26–29. No attempt should be made to come to close quarters with the enemy until all of them are casualties, and then only with caution. A surrender should be accepted only at a distance which keeps the L.D.V. out of range of hand-grenades or automatic pistols: hands should be held up palms forward to show they are empty: the enemy must lay down all their arms, including grenades from trouser-pockets, and walk well away from them.

A machine-gun can provide effective fire at long range, but riflemen should try to get quickly to about two hundred yards away from the enemy landing, taking cover, and then open fire, under control. Some should be instructed to fire at the parachutists, and a few others, picked shots, to fire at the container. A hit on the container may well explode it or make it useless: even if it is not hit shots going near it frequently enough will keep the parachutists from approaching it, and until they have unpacked its contents they are only short-range troops carrying revolvers, automatic pistols, grenades, or at best sub-machine-guns (Thompson

or "tommy guns"). Aware of this, they may try a rush attack on the L.D.V.: the rush should be expected and met with rapid but steady fire. If this fails to stop them, the sensible thing for the L.D.V. to do will be to withdraw (see "Covering Fire," page 123) and keep the advantage of distance. Sail planes once landed are likely to let loose troops in numbers too large to be attacked by small L.D.V. formations; but while they are gliding down they should be fine marks for riflemen, and if the pilot is hit or distracted there may well be a crash.

Finally, two warnings should be kept in mind. A spirit of prompt and determined offensive should be cultivated by every L.D.V., but it should be cultivated intelligently. The first duty is always observation and reporting, and no attack should be started unless it has a reasonable prospect of quick success. Highly organised, complicated or prolonged operations are jobs for regular troops, and good observation and reporting will bring them quickly to the place where they are needed.

The second warning concerns noise. Even men who came through the intense bombardments of the 1914–18 war may, it seems, be taken aback by the appalling row set up by whistling bombs, the special sirens fitted to some German 'planes, the screaming roar of dive-bombing 'planes hurtling

downwards from the upper part of the sky. It is not likely that bombs will be dropped (except by miscalculation) exactly where air-borne troops are landed, but there may well be bombing near at hand, to create panic and divert the attention of the defence. Thus at any moment L.D.V. detachments may expect all hell apparently let loose around them: the word "apparently" is put in because the noise does not add one fraction to the damage done by air-bombing. Most bombs in this sort of attack are wasted: people who are in shelters, in trenches, or lying face-down on the ground, hands over the ears and back of the head, have an excellent chance of escaping any injury at all. The noise is part of the German tactical plan, designed to cause terror and stupefaction. It is said to be a good idea to swear at it: even if you cannot hear what you say, you know the meaning of the words, and you get psychological relief. The noise is harmless in itself, and so long as that fact is well understood, it will be harmless in effect. Moreover, it cannot be long sustained, as an artillery bombardment can be, and because the human mind possesses infinite powers of recuperation and adaptation, we can all expect to get used to the row quite quickly, and to forget the bad moments soon after they have passed.

CHAPTER IV

DEFENCE WORKS AND ANTI-TANK WARFARE

THE strategical use and tactical organisation of local defence systems are not to be discussed everywhere or set down in print. They are carried out in accordance with instructions from higher authorities. But, as an intelligent and reasonable citizen anxious to do everything in his power to further the job he has taken in hand, the individual L.D.V. should make it his business to study some of the general principles involved (which are no secret) and certain technical facts which may be of use to him before and during action.

The fixed defences which the L.D.V. may be expected to hold have been prepared chiefly to block the way for enemy troops landed by troop-carrying 'planes, parachutes or sail-'planes. The question of when and how such detachments of the enemy, in small numbers (and observed and reported promptly) may be attacked has already been discussed. The fixed defences will come into

use immediately in the area in which a landing has been made, if (as is very likely) it is made on such a scale that the enemy cannot be immediately attacked and crushed. Fixed defences will also be manned and held in all districts adjacent to the district in which the landing is made. If this defence is undertaken speedily by trained, courageous L.D.V.'s it will have two effects the importance of which can hardly be overstated. First, it will prevent the enemy from rampaging at will through the country-side, doing material damage and creating panic and confusion. And, second, at the very least it will confine him for some time—the longer the better—within a small area where he will soon have to face British regular troops with the adequate armament, the heart and the will to conquer him then and there.

The L.D.V. should always bear in mind that they have one tremendous advantage over any invader—they know their own district inside out and back to front. The enemy, aiming at speed of movement, will try to move along roads, and especially along main roads between important towns. To do this he may commandeer vehicles or he may bring his own light bicycles and motor-cycles. Road blocks are prepared and will be manned to put a stop to his road-hogging.

Road Blocks.—These are usually sited where the

drivers of approaching vehicles cannot see the obstacle until they are almost on top of it, where they cannot easily turn their vehicles or run them off the road to take to the fields. Road blocks are usually made of two fixed or moveable barriers which overlap in the middle of the road, but leave a gap through which a big lorry can move at the speed of a man walking. Sometimes the road is completely blocked across, but in general the idea is to permit British traffic, especially military traffic, to pass through freely if slowly. Heavy material is kept at hand to close the gap when necessary. Light road blocks, usually booms and barbed wire, are intended to hold up enemy cyclists and motor-cyclists. They will be ineffective without rifle fire or grenade-throwing by the defenders, but with this necessary addition they should bring the enemy to a sudden halt, when he should be made to suffer heavy casualties. Heavy road blocks will be reinforced in time of emergency with vehicles filled with earth or stones or other large objects. A good defence against cycles and motor-cycles is a length of strong wire across the road, about three feet above the surface, and fastened securely at each end. Broken glass should be scattered only when definite news is received of the enemy's approach: otherwise it may obstruct British traffic.

The Manning of Road Blocks.—In no case should

L.D.V.'s line up behind a barrier. They should be placed on the flanks, using cover, and it may be wiser to have them all on one side of the road, in case they fire on each other at moments of excitement. If no natural cover is available, weapon-pits (described on page 64) should be dug and used by the garrison defending the road block. If we go by the German practice in the Low Countries and France, the enemy held up in the road will promptly retire a little and "whistle up his air," i.e. he will signal for 'planes to come and drop bombs on whatever bars his way. Cellars or reinforced ground floor rooms or trenches should therefore be available near, but not too near, to any road barrier. They will provide adequate protection and allow the garrison to show fight as soon as the bombing is over. The defenders of light road blocks should also remember that enemy troops in cars, or on cycles or motor-cycles will probably carry hand-grenades which they may throw at the barrier in the hope of blasting a gap. Good shooting and, if the siting of the road block permits, the throwing of hand-grenades by the L.D.V. should nip this manœuvre in the bud.

The Defence of Villages and Street Fighting.—It is always a good idea to put oneself in the enemy's place in order to prepare moves and counter-moves against him. Enemy troops landed from

the air or raiding inland will be picked, resolute men, specially trained and equipped for their job. But they will not be in any sense super-men. In some corner of their minds will be the awareness that, even if they have a local and temporary superiority, they are in the long run outnumbered, surrounded, and always in need of supplies and reinforcements which may never reach them. They will know only roughly where they are and where they are moving to. Everything around them will be strange and hostile. Every moment of their existence will be precarious. Every time one of their number is wounded they will have to decide whether to leave him to give information to the British or to take him along as a burden of no military use. Nevertheless, if they meet with no determined and organised opposition, they can put up a good bluff: against such an opposition, however, their bluff will be quickly called, and in their hearts they will know this the moment they are landed.

Whether invaders come by day or by night their position can be compared to that of a desperate burglar trying to find his way round a strange house which he has never entered before, in order to steal the valuables. Curtains are drawn, shutters are up, and he dare not show a light. If the house is empty of furniture and people, if it contains only the safe he has come to crack, the burglar will

be successful. That is more or less what happened when the German columns got behind the lines in France. But if the house is full of heavy furniture for him to bruise himself against, and if all the valuables are guarded by armed householders who have been training for this very job, the burglary is going to be a failure. That is what will happen if an invasion of this country should be attempted: road-blocks and fortified villages will have the same effect on raiders as heavy furniture in a dark house on a burglar, and the L.D.V. will correspond to the armed householders knowing every inch of the ground they fight over.

The general idea is that, wherever enemy troops land, they find themselves trapped in a network of fortified villages or small towns or suburbs and centres of cities, so that they cannot move in any direction without having to fight. Every such village or other fortified centre will be self-contained, and will itself consist of a number of self-contained defences organised to resist attack from all directions. The methods of this organisation are better not discussed in public, and in any event they are always subject to local variations. The network of fortifications exists *now* and is ready for action.

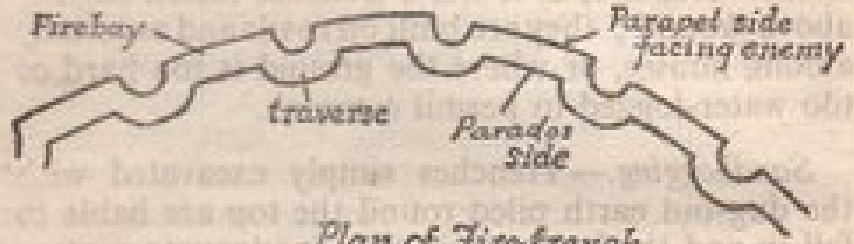
But a few words about street fighting may be useful. The basis of it is to keep out of the street,

or at least out of the centre of the street. Corners should always be turned with the utmost care, and there should be a preliminary, cautious, quick reconnoitring before any move is made into another street. Men should never be allowed to bunch together, and, even if not apparently under fire, they should move close against walls and garden hedges. Rifles should be fired from windows by standing back so that the muzzle hardly protrudes through. Grenades should not be thrown blind over walls: they are liable to hurt the wrong people. Nor can they usually be safely dropped from windows because of the upward blast of the explosion. "Molotoffs," however, can be dropped from windows on to vehicles moving or stationary underneath. Barricades, unless they are exceptionally strong and solid, should not be manned like a trench: they are too vulnerable to machine-gun and rifle fire, and grenades. The defenders should fire from houses or from behind walls or breastworks on one flank, and in advance of the barricade.

Trenches and Weapon Pits.—The siting and construction of trenches and weapon pits is a job for men with some knowledge of military engineering. The non-specialist L.D.V. should, however, understand their purpose and something of the technique used in making them. Trenches, even communication trenches, are usually dug with more or less

regular bends, but maintaining the general line. (Diagram G.) In a fire-trench, to be manned with rifles and machine guns, the sections facing the expected advance of the enemy are known as fire-bays: in these fire-bays a step or ledge is cut

DIAGRAM G



Plan of Fire-trench showing fire-bays and traverses.

in the forward wall for the garrison to stand on when firing or keeping watch. The top of the forward wall, facing the enemy, is known as the parapet, and is usually reinforced with sandbags. The back wall is lower and is known as the parados. Between the fire-bays, and without fire steps, are shorter sections, known as traverses: they act as buttress walls, and their purpose is twofold, to prevent a machine-gun or rifle firing down the whole length of the trench, and to limit the danger area from any shell or grenade which explodes in the trench—not a very frequent occurrence.

Weapon pits are short sections of trench, with or

without traverses, sometimes quite shallow, to provide shelter and a good firing position for a garrison of up to six men. Slit trenches are not primarily for firing from: they are intended to shelter men jumping into them under sudden artillery or air bombardment. They are both narrow and shallow. Breastworks are, as it were, trenches raised slightly above ground: they are built on roads and especially among houses, or where the ground is too hard or too water-logged to permit a trench.

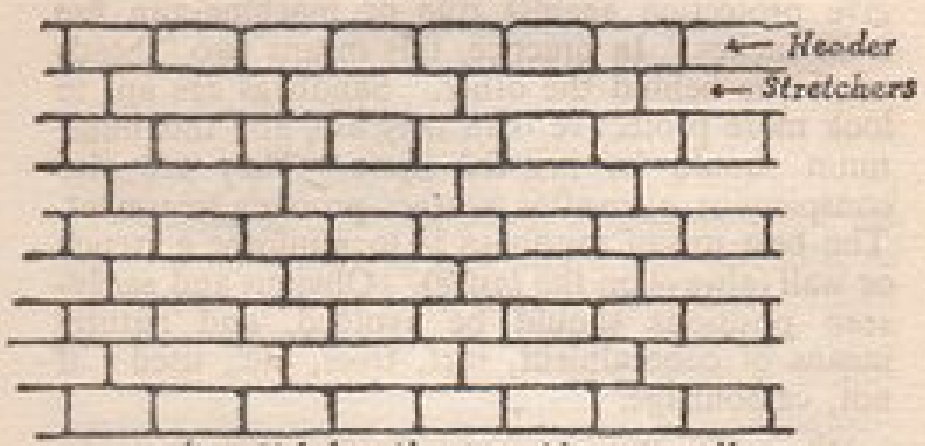
Sandbagging.—Trenches simply excavated with the dug-out earth piled round the top are liable to fall in and the loose earth gives inadequate protection to men on the fire-step. The walls, the parapet, and sometimes the parados of a fire-trench are therefore usually strengthened. Sandbags may be used for the whole job, or the walls may be secured with revetments of hurdles, corrugated iron, expanded metal, or wire-netting with or without a backing of canvas.

Sandbagging should be done under expert direction, but if this is not available, the following directions should be useful. Sand is preferable to earth as it does not swell or grow soggy after rain, or sprout weeds. It also gives a much better protection against bullets and shrapnel. The sandbags should be filled to three-quarter capacity and the necks tied with string. Thereafter they should

be treated as bricks, the corners tucked in and folded over, and, as each bag is laid in place, it should be beaten into shape with a spade till it forms something like a solid brick measuring twenty inches by ten inches by five inches. This is to obviate chinks and weak spots.

The system by which sandbags are built into a wall is known as " English bond." (Diagram H.)

DIAGRAM H



'English bond' system of laying sandbags
Note the 'breaking' of joins in adjacent layers
No seams or tied ends showing.

" Headers " and " stretchers " are laid in alternate rows : that is to say, in one row the sandbags are laid lengthways, always with the seams on the

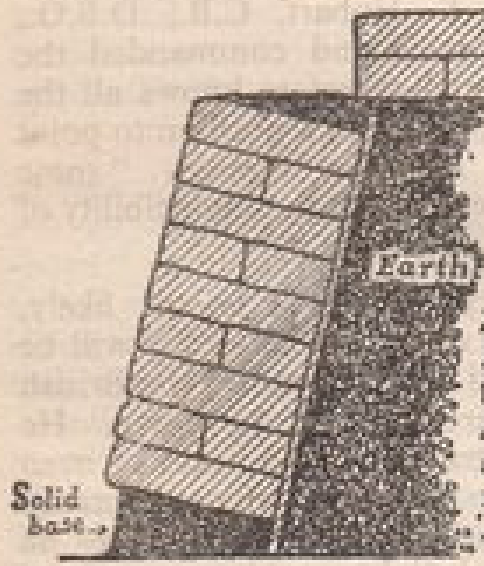
inside, and out of sight, while in the next row the sandbags are laid with the widths (the ten-inch dimension) side by side, and the tied ends inwards and out of sight. It is also most important that the joins should be " broken " : the whole length or breadth of a sandbag in one row should be centred over the place in the row below where two sandbags meet. This method gives the greatest strength, protection and durability.

The minimum thickness of a sandbag wall to give protection against rifle or machine-gun fire is 27 inches. In practice, this means two " headers," one behind the other. Sandbags are apt to look more protective than they are, and this minimum should be insisted upon. They are also conspicuous, even after weather-proofing treatment. The best use of sandbags is to reinforce a trench or wall (always on the *inside*). Obvious and easily-seen positions should be avoided, and natural means of concealment, turf, trees, etc., used : if not, camouflage.

When sandbags are used for revetting the parapet-wall of a trench, the wall of sandbags should be built not vertical but at a slight slope forward. (Diagram I.) The " English bond " method should be followed, and the sandbags laid at right angles to the slope and not parallel to the floor of the trench. Wooden loophole boxes are

supplied from military stores, but if they are "home-made" the standard pattern should be followed.

DIAGRAM I



Section of Parapet wall in Trench reinforced with sandbags. Note angle of slope, sandbags laid at right angles to it, on 'English bond' system.

Anti-Tank Warfare.—Tanks are a British invention. With or without support from the air, they are formidable. The German success in the Low Countries and France was due largely to the size, speed, thrusting power and surprise effect of their tanks. The best counters to tanks are other tanks and artillery fire. These will be provided in the event of an attempted invasion. But even when it

does not immediately meet equal opposition, the tank should not for a moment be regarded as invulnerable or all-conquering. There is much that the L.D.V. can do to harass, and even to put out of action, any enemy tanks which come their way. Major-General P. C. S. Hobart, C.B., D.S.O., O.B.E., M.C., who created and commanded the British Tank Brigade and therefore knows all the advantages of the tank, is also in a position to point out its weaknesses. And he foresees "some danger of an exaggerated idea of the invincibility of these machines."

First, for the heavy tanks. It is not likely, General Hobart points out, that the enemy will be able to use undisturbed a good port on the British coast, in the face of our Navy and Air Force. He should not therefore be able to land heavy or even medium tanks in large numbers, whatever stroke of fortune aids his invasion plan. On beaches he would be able to land only light or cruiser-type tanks and, while he may be able to carry light tanks by airplane, he can land these only on airfields, and airfields he has already seized. These facts help to bring the whole problem into proportion.

But let us suppose the worst. Let us suppose the enemy succeeds in getting some heavy and rather more light tanks into this country. He at once finds himself in a countryside highly unsuit-

able, for the most part, to tank warfare. It is, says General Hobart, " close, much cut up by ditch and bank and full of brooks and other small obstacles which slow down and delay tanks even if they do not stop them." Again, " the smaller the tank the poorer its cross-country performance "—and the enemy will have to rely chiefly on small tanks. Even in dry weather and over suitable country, in France, Holland, Belgium and Poland, the German tank columns moved nearly always by road. In Britain they would almost everywhere be forced to use the roads.

The roads of this country are now everywhere blocked, in and out of built-up areas, every few miles, and the L.D.V. are trained and ready to defend the blocks. It will be seen that enemy tanks are going to have no easy or speedy passage.

Now let us consider some of the weaknesses of the tank, for it is against weaknesses that profitable attack and defence is directed.

(*a*) The tank depends on petrol and without frequent supplies cannot move for long. Petrol stores and lorries will therefore be well guarded, and in an emergency are easily set on fire with a " molotoff."

(*b*) The crew of a tank suffers great nervous and physical strain, from heat and noise and fatigue.

They need sleep and food more frequently than most soldiers. To get this they halt the tanks in places of concealment, by day and by night, and are then vulnerable to surprise attacks by small bodies of riflemen and grenade-throwers who might not reasonably be able to tackle moving and manned tanks.

(*c*) A tank in action is partially blind. If the lid is up and the head of the look-out showing, a rifle shot or two should make him duck and close the lid. With the lid closed, observation is possible only through slits in the armour, and is unsteady and uncertain at that. At any one moment a very large proportion of the countryside cannot be seen at all by the crew of a tank with the lid closed.

(*d*) The tank cannot fire on men or objects close to it or high above it. The guns can be depressed or elevated only to a certain degree. They cannot hit anything at ground level within twenty feet of the tank. On the other hand, the mobility of the tank reduces this handicap, and it should be regarded as vulnerable to close-in attack only in a narrow road or defile.

(*e*) All tanks must have apertures for vision and rather larger apertures for air-inlets to the engine. These are protected by overhanging armour, but if a tank is caught stationary a good shot may be able to send a bullet ricochetting round the inside. And

the air-inlets of a tank in motion are always liable to suck in the burning liquid from a "molotoff" burst on the top.

(*f*) "The most vulnerable portion of a tank," says General Hobert, "is the suspension," especially the track; and "the belly is usually the most lightly armoured portion."

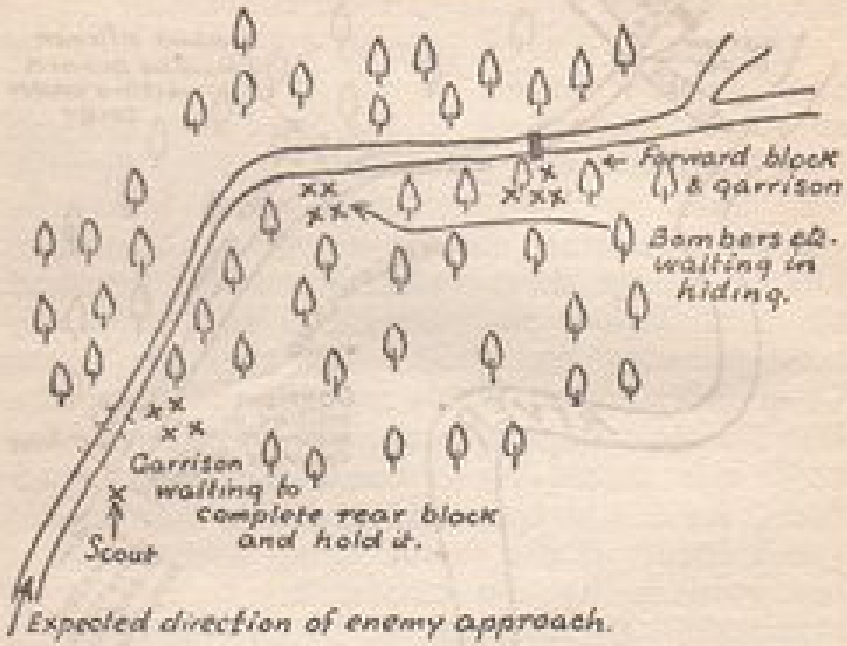
Keeping all this in mind, it should now be possible to outline various methods of putting tanks out of action which are within the scope of the L.D.V. The planning and organising of ambushes against tanks, of course, is a matter of local strategy. The general principle is to admit the tank column or line of commandeered cars into a length of road of which all the forward exits are strongly blocked. Space is needed, so that before the vanguard or scouts (probably on motor-bicycles) have been held up, the rear tanks are well into the trap. The rear garrison then comes out of hiding and completes the rear road block with material prepared and ready to hand. A signalling system must be devised, so that the attacks take place simultaneously. The road selected should be narrow and, if possible, walled, to make it difficult for the tanks to manœuvre and turn. Garrisons and ambush parties should be kept to the same side of the road, or if this is not possible, grouped closely together, to prevent

them firing on each other, and to facilitate advance or withdrawal. Three examples of ambushes are given in Diagrams J, K and L, which may be elaborated and adapted to local conditions.

It might be a good plan to prepare a sham or comparatively fragile barrier a hundred yards ahead of the entrance to the trap. No garrison need hold this, and the enemy, bursting through with ease, may career ahead, with incautious elation, for another quarter of a mile and so make himself all the more vulnerable to the prepared ambush. Rifles, machine-guns, and especially hand-grenades and "Molotoff cocktails" (see Chapter V) are all highly suitable for ambushes. But the most important element is surprise: the endeavour should be to create the utmost confusion for five to ten minutes, and in that time to attack hard. If the enemy is not overcome in a few minutes, he will recover his superiority of armament. Before then, the Home Guard should have retired according to plan, and be ready to fight again at another time and place.

The ambushing of tanks by lightly-armed troops is a hazardous operation, not to be undertaken except on suitable ground and with well-trained men. Opportunities, however, may well present themselves, without a set ambush, and there are certain methods of attack which every L.D.V. should understand and prepare himself to use.

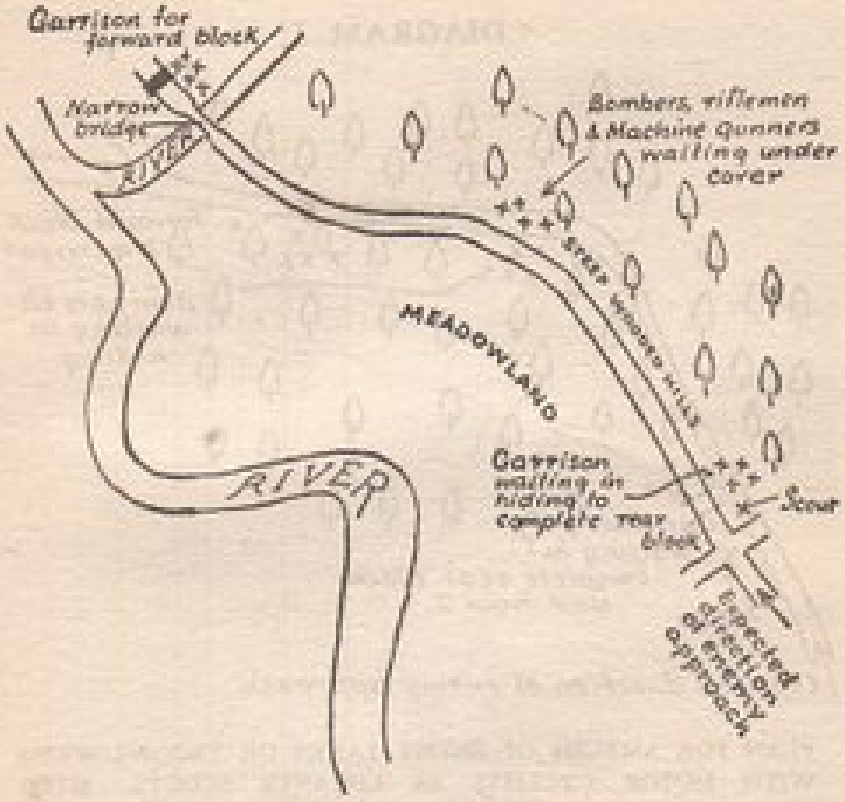
DIAGRAM J


Forward block & garrison
Bombers &c. waiting in hiding.
Garrison waiting to complete rear block and hold it.
Scout
Expected direction of enemy approach.

PLAN FOR AMBUSH OF ENEMY TANKS OR TROOP-LORRIES WITH MOTOR CYCLISTS AS ADVANCE SCOUTS. SITED ROUND BEND OF ROAD IN A WOOD

[*Note.*—Garrisons all on same side of road to prevent them firing on each other, and to make for unity in pursuit or withdrawal]

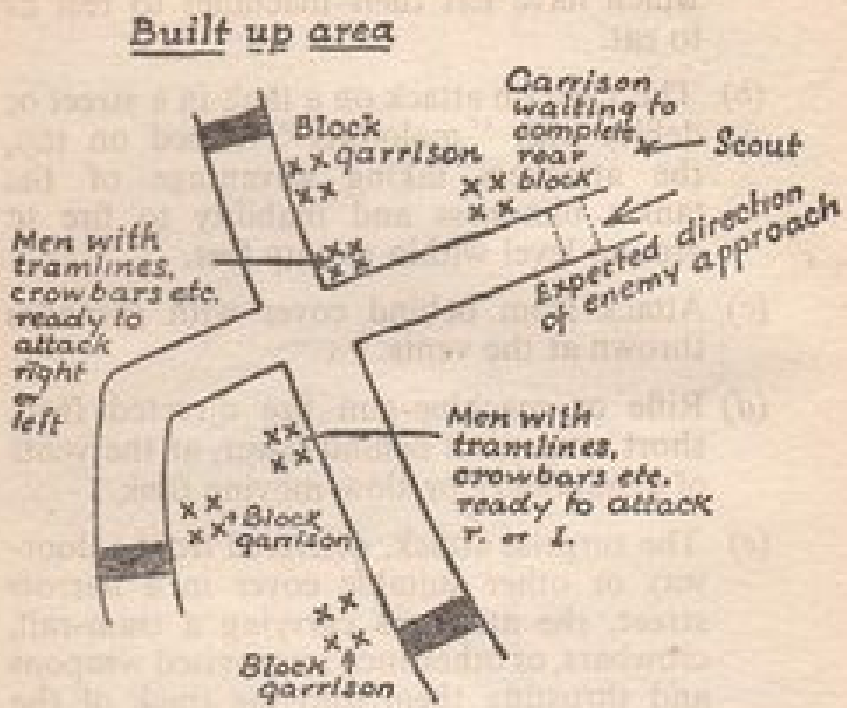
DIAGRAM K



PLAN FOR A ROAD AMBUSH OF ENEMY TANKS OR TROOP-LORRIES WITH MOTOR-CYCLISTS AS ADVANCE SCOUTS

[*Note.*—Grouping of garrisons all on hill-slope side of road, covering not only road but flat meadowland with their fire, having cover for retreat (if enforced) and leaving enemy with river in his rear and flank. The hill slope side of the road should be wired to keep the enemy to the road or the meadows]

DIAGRAM L


Built up area
Block garrison
Garrison waiting to complete rear block
Scout
Men with tramlines, crowbars etc. ready to attack right or left
Expected direction of enemy approach
Men with tramlines, crowbars etc. ready to attack R. or L.
Block garrison
Block garrison

PLAN FOR AMBUSH OF ENEMY TANKS OR TROOP-LORRIES WITH MOTOR CYCLISTS IN ADVANCE. SITED ROUND CROSS ROADS IN TOWN OR VILLAGE

[*Note.*—That garrisons and crowbar parties are placed in two main groups with little possibility of one group firing on the other]

These are :

(*a*) The surprise attack on the crews of tanks which have left their machines to rest or to eat.

(*b*) The close-in attack on a tank in a street or defile, with "molotoffs" lobbed on top, the attackers taking advantage of the tank's blindness and inability to fire to ground level within twenty feet.

(*c*) Attack from behind cover with grenades thrown at the vents.

(*d*) Rifle or machine-gun fire directed from short range, but behind cover, at the vents of a stationary or slow-moving tank.

(*e*) The surprise attack, delivered from a doorway or other suitable cover in a narrow street, the attackers carrying a tram-rail, crowbars, or other such improvised weapons and thrusting them into the track of the tank. Gun cotton or dynamite or a grenade may be tied on the business end of the tram-rail.

(*f*) A similar attack on the track but made with a petrol-soaked blanket which is set alight and caught up in the moving track, destroying the rubber and bringing the

tank to a halt, when it may be "starved out."

(g) Attack with grenades, directed against the weakly armoured belly of the tank, from in front as it rears up to cross a bank, or from behind as it drops down the other side.

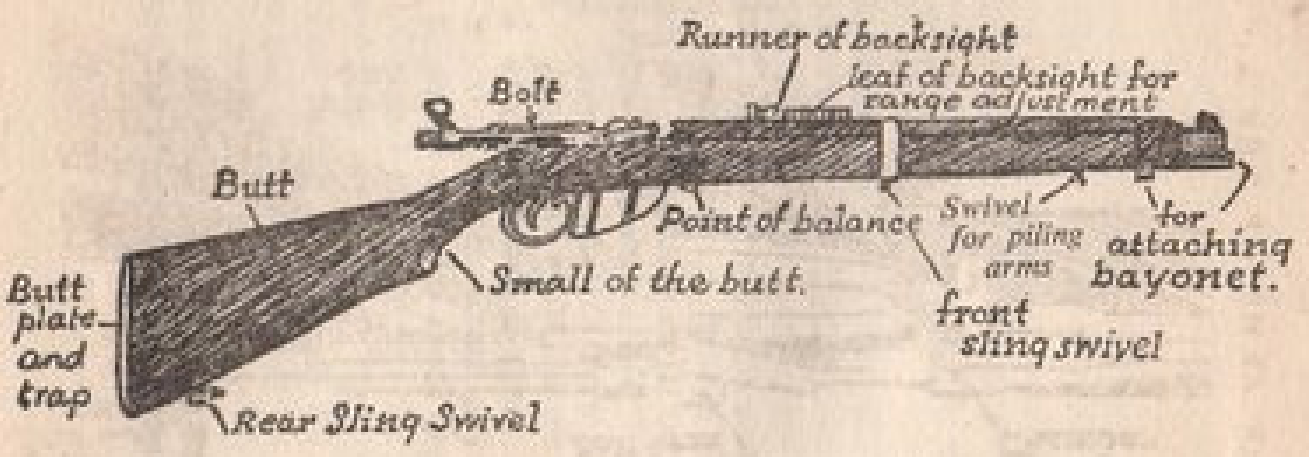
None of these measures involves the use of special anti-tank weapons. To whatever extent they succeed, they should, in conjunction with the road-blocks, make the life of invading tank crews precarious and unhappy until regular troops arrive to tackle them in the regular manner.

CHAPTER V

THE ARMS OF THE L.D.V.

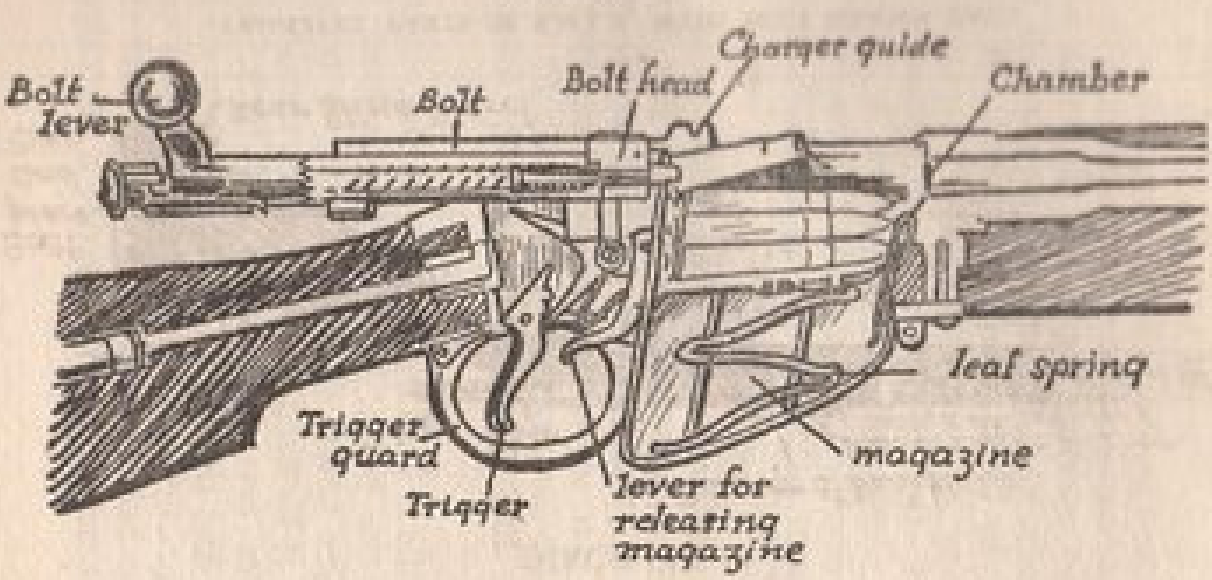
The Rifle—Construction and Mechanism.—L.D.V.'s are armed with either the Short Lee Enfield (S.M.L.E.), the Canadian Ross, or the P. 14, or most likely with American rifles of slightly different calibre. The differences between these types are minor and one type can easily be distinguished from another. The P. 14, a very accurate weapon which, fitted with telescopic sights, is used by snipers, has an aperture back-sight. This, when the leaf (or range-finding scale) of the sight is flat, provides a small circle through which the rifleman's eye looks at the foresight (near the muzzle) and the target. The Canadian Ross rifle has a straight-pull action: the bolt lever has not to be pulled up before it is pulled back. As well as the "u" of the back-sight, it has an aperture sight, fitted to the side of the stock. The Ross has to be kept exceptionally clean on active service as both the bolts and the sights are apt to collect

DIAGRAM M



PRINCIPAL PARTS OF S.M.L.E. WITH BOLT DRAWN BACK

DIAGRAM N



SECTION DIAGRAM SHOWING ACTION OF BOLT TRIGGER AND MAGAZINE

dirt and grit. The S.M.L.E. rifle is the standard pattern used in the British army, and is a shorter, lighter and handier weapon than either of the others. It has no aperture sight, the magazine will hold ten rounds, and the muzzle is guarded right to the end by both wood and metal. A variation which may be met with is the "Japanese" rifle, in which the magazine is incorporated in the wooden stock and does not show in front of the trigger guard. The American "Springfield" works on the same principle as the S.M.L.E., but fires a bullet of ·300 inches calibre.

The explanations which follow refer to the S.M.L.E. as the standard type. The first thing for the L.D.V. new to the rifle to do with his weapon is to learn to name and recognise the chief parts. He can do this conveniently by taking the rifle in his hands and studying diagrams M and N.

The rifle is fired by pressure on the trigger which operates the bolt. Nothing results from pressing the trigger unless the safety catch is released (by pushing it forward with the right thumb) and the bolt lever first pushed up and back, and then forward and down. The rifle is then cocked and ready for firing. What happens, out of sight, when the bolt is pushed forward is that the front end or head of the bolt slides a cartridge, rising

from the magazine, forward into the chamber and locks itself against the force of the explosion that will occur when the rifle is fired. When the trigger is pulled right back, a piece of mechanism consisting of a "bent," a "sear" and a spring impels the striker forward. The striker is a thin steel rod which is forcibly ejected from the bolt head and strikes the cap of the cartridge in the chamber.

"Cartridge" or "round" is a convenient name for a two-in-one. It consists of the cartridge proper, and the bullet. The cartridge is a brass cylinder (or cartridge case) filled with cordite. When the cap is hit by the striker the cordite is exploded and forms an expanding gas. Because the rifle bolt is locked tight behind the cartridge in the chamber, there is only one way for this violently expanding gas to escape: through the non-cap end of the cartridge case into which the bullet is fixed. In doing this, the cordite gas pushes the bullet violently along the barrel of the rifle and out by the muzzle. The barrel (as can be seen by removing the bolt and looking down it from the breech end) is rifled; it is channelled with a continuous spiral groove. This rifling imparts a spin to the bullet, which prevents it turning head over tip as it speeds through the air, maintains its velocity, and keeps it travelling point foremost.

The magazine will hold ten rounds at a time, and the method of loading is dealt with on page 111. The magazine can be removed for inspection or cleaning by pressing upwards the small lever under the trigger-guard and in front of the trigger. A metal "platform" will be seen at the top of the magazine and if this is pressed down the strength of the "W" spring underneath can be tested. The metal bridge over the bolt is the charger guide: ammunition is carried in clips (or chargers) of five rounds and the clip should be fitted into this guide and the cartridges pressed down into the magazine, leaving the clip to fall to the ground or to be pocketed.

As soon as a bullet leaves a rifle it begins to lose velocity and to yield to the force of gravity pulling it towards the earth. It is true that it will travel some miles before, if nothing intervenes, these two forces bring it down, but they operate from the first and the further it goes the stronger they become. A bullet, then, does not travel in a straight line continuous with the line of the rifle barrel: it follows a curve called a trajectory. This means in practice that at any range over two hundred yards the rifle barrel must be raised or elevated above a straight line between the marksman's eye and the mark aimed at. But if this were done with a rifle not fitted with sights, the rifleman, looking

along the barrel, would not be able to see whatever he was trying to shoot—unless it were very close at hand.

To enable the barrel to be elevated to the appropriate angle and yet afford the rifleman a view of his mark, the rifle is fitted with two metal sights. That near the muzzle is called the fore-sight, and consists of a small, vertical, fixed leaf of metal between two strong metal guards. About eighteen inches behind it, and also on the upper part of the rifle, is the back-sight, which consists of a horizontal piece of metal with a "u"-shaped hole cut out of the middle of its upper edge. This back-sight can be raised by pressing inwards on the button on the runner (over the range-fixing scale) and pushing it forward. The range-fixing scale is marked with numbers, each standing for a hundred yards, and running up to 20. Thus if the back-sight is set at 20, and the distance has been correctly judged, the rifleman can aim at a mark two thousand yards away from him. Aim is obtained by looking along the barrel with one or both eyes over the butt, so that the upright of the fore-sight appears to be in the middle of the "u" of the back-sight and level with the shoulders of the "u." This is fully discussed on pages 117 and 118. In the meantime, to understand roughly the working of these sights, the L.D.V. should take

his unloaded rifle, set the back-sight to say eighteen hundred yards, and take aim : then he should withdraw his head from the butt and look at the rifle as a whole. He will probably be surprised by the angle at which it is pointing upwards. The same principle operates, though not so noticeably, at all ranges over two hundred yards.

It may be just as well here to think of this curve or trajectory as it may affect the man at the other end of the rifle, the man who is being shot at, and to remember that guns and machine guns also fire along trajectories. Thus cover which would be effective against fire at point blank range may give inadequate protection against fire from a longer distance which drops downwards as it nears the mark.

Three further points about the construction of the rifle. The two metal bosses on the underside of the barrel, near the muzzle, are for clamping on a bayonet. The swivel below the second of these is for fastening rifles together in tripods, the operation being known as " piling arms." And in the butt is a receptacle, the trap lid of which can be prised open with a coin, a penknife or a horny thumb nail. This is used for a brass oil-bottle, a pull-through and four-by-two, the uses of which will now be considered.

The Care of the Rifle.—A rifle which is not kept clean will either not fire at all or will fire inaccurately and perhaps to the danger of the man using it. The rifle may come into the hands of the L.D.V. for the first time with all the metal parts plentifully coated with vaseline. In this condition it is useless and the vaseline should be at once removed from every corner.

The whole rifle should be kept free from dirt, but the most important parts are the action mechanism (breech, trigger action, chamber and bolt), the barrel, and the two sights. Winchester or some other fine rifle oil should be used, and applied with a piece of clean rag not likely to leave fluff or threads behind it. Old handkerchiefs (preferably somebody else's), well washed, are suitable, if the regulation pieces of flannelette known from their size as four-by-two are not available. The bolt and the magazine should be removed for cleaning; if the bolt head is prised up firmly when it is drawn back the whole bolt can be removed. The bolt needs slightly more oil than other parts, but avoid excess here and in the chamber. Metal polish should never be applied except perhaps to the butt plate. The trigger action and the inside of the bolt are best left alone ; if trouble develops, get in touch with an armourer. The sights and guards should be rubbed with a cloth only slightly oily,

and an occasional rub will do the woodwork no harm. *After* this oiling, as well as before, examine all metal parts thoroughly and remove any specks of dirt or fluff: a matchstick is useful for getting to not easily accessible places.

The barrel needs a special operation of its own: it is always fouled after firing by a deposit or film left by the cordite gases exploded in the cartridge case, and if damp gets in it may rust, a disaster very much to be guarded against. To remove rust a piece of fine steel gauze is needed on the end of a pull-through, but expert advice should be taken before it is used.

To clean the barrel after firing, remove the bolt, and hold the rifle with the muzzle sloping slightly downwards. Use a funnel with a tube at one end which fits snug into the chamber. Pour down it, slowly, a quart of boiling water, taking care not to spill any into the breech. You can get a friend to hold the rifle for you, and afterwards perform the same office for him. Cold water is just as good for removing the deposit from the barrel, but hot water makes the subsequent drying easier and quicker.

This drying is done with the pull-through, a length of cord with three loops at one end and a tubular brass weight at the other. Hold the rifle

as for the water pouring and drop the pull-through into the chamber, brass weight first. The brass weight will then emerge from the muzzle with a certain amount of the cord. Then lift the barrel with the left hand and drop the rifle gently to the ground so that it rests on the butt, trigger and magazine upwards. Loop the cord round the right hand and pull steadily upwards and in line with the barrel, using one continuous action till the whole pull-through is clear. If there is any pause in the pulling action a ring of dirt may be left half way up the barrel. For the drying operation you must first, before you insert the brass weight, fold a piece of four-by-two or similar cloth round the middle-loop of the cord. It will come out wet and perhaps dirty. Change it for a clean piece and continue until one piece comes out as clean and dry as it went in. Then use the pull-through once again, this time with a four-by-two well soaked, but not saturated, with rifle oil. Whether the rifle is fired or not, the barrel should be examined every day for specks or patches of rust, especially in and near the rifling grooves. After the daily examination it never does any harm to pull it through once with an oily patch of four-by-two.

Expert riflemen use cleaning rods and brushes, but even if these are available the L.D.V. should avoid them, as they are not likely to be at hand

on active service. Whenever the rifle is put away or not required for duty a cloth breech cover should be fastened round the back-sight, bolt, trigger-guard and magazine. If the regulation cover cannot be obtained, any old piece of clean cloth, so long as it is tightly wrapped into place, will serve the same purpose of keeping dust away. The practice of putting a cork or piece of rag into the muzzle is at all costs to be avoided: sooner or later the rifleman forgets it is there, loads and fires, and damages his rifle if not himself. But even on the march and in guard rooms it is a good idea to keep a piece of cloth firmly wrapped round the muzzle and fore-sight of the rifle: it will not be overlooked if a shot is required, and it does keep out dirt and rust.

The Bren Gun.—As the war progresses, the Home Guard may expect to receive light machine-guns among their armaments. These need a special course of instruction, but there can be no harm in understanding their mechanism in outline and the general principles of their working.

The Bren is the newest, lightest and most useful of light machine-guns for infantry use. It is gas-operated, part of the gas set free in the barrel by the explosion of the ordinary ball cartridge being turned back to work a piston and so bring the next ball cartridge into firing position. It is

fed by a magazine which holds thirty rounds, is curved in shape, and fits into the top of the breech, the curve pointing forward. It is air cooled and after firing ten magazines in succession at the Rapid Fire rate, the hot barrel should be exchanged for the spare. The changing takes only eight seconds.

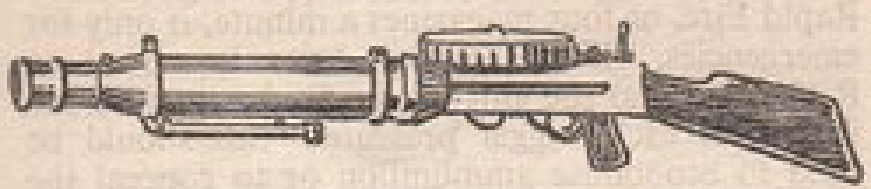
The Bren gun is fired with the butt plate against the right shoulder, on top of which the butt strap fits. The left hand holds the butt handle (under the butt) and the right hand presses the trigger. Aiming is done over a back-sight and fore-sight, as with the service rifle. In mobile action the gun is fired from a prone position, the fore part of the barrel being supported on a vertical two-footed stand or bipod. In a fixed position, particularly for setting up covering fire in defence, the three-footed stand or tripod should be used, with two lengthened legs extended backwards. The tripod can also be erected upright, all three feet on the ground, and only about a yard apart; a fourth leg is then extended from the top of the other three, vertical, and the gun fastened to this, so that it may be used against aircraft.

The rate of fire can be controlled by the change lever to be found just above the trigger. Move it to S (for Safe) and the gun cannot be fired at all. Move it to A (for Automatic) and trigger-pressure

maintains continuous fire until the magazine is exhausted. The normal rate is five bursts each of four or five rounds or one magazine a minute. Rapid Fire, or four magazines a minute, is only for emergencies. If the change lever is moved to R (for Rounds) the gun can be fired as a rifle, one round for each trigger pressure: this should be used to economise ammunition or to conceal the presence of a machine-gun. The loading, the stripping (or taking to pieces), and the cleaning of the Bren gun, as well as the quick treatment for stoppages, are best learned under personal instruction, but anyone who has a mental grip of the information given above should in an emergency have a good chance of getting a Bren gun into action (Diagram O).

The Lewis Gun.—This light machine-gun was first put into use during the 1914–18 war and is still an excellent weapon. It is similarly air-cooled, gas-operated and magazine-fed. (Most heavy machine-guns are fed from ammunition belts). The Lewis gun can readily be distinguished from the Bren by the fact that its barrel (which is not interchangeable) is surrounded by a tubular metal case along most of its length. Thus the greater part of the Lewis gun looks like a drain pipe, while the Bren barrel is no thicker than a gas pipe and is bell-shaped at the muzzle. The magazine or drum for the Lewis is disc shaped and fitted

DIAGRAM O



LEWIS GUN

BREN GUN

THOMPSON GUN

flat on top, where it is rotated, the rounds falling successively into the chamber. The Lewis Gun is fired by butt control and trigger pressure; it has a stand to support the fore end, and, like the Bren, it may be used against aircraft. Its mechanism is, however, much more complicated, and instruction and experience are essential, especially to correct stoppages. The L.D.V. may go out of his way to obtain such instruction from authorised instructors, and in the meantime should learn to recognise the Lewis gun and the general principles of its working, which are much like those of the Bren (Diagram O).

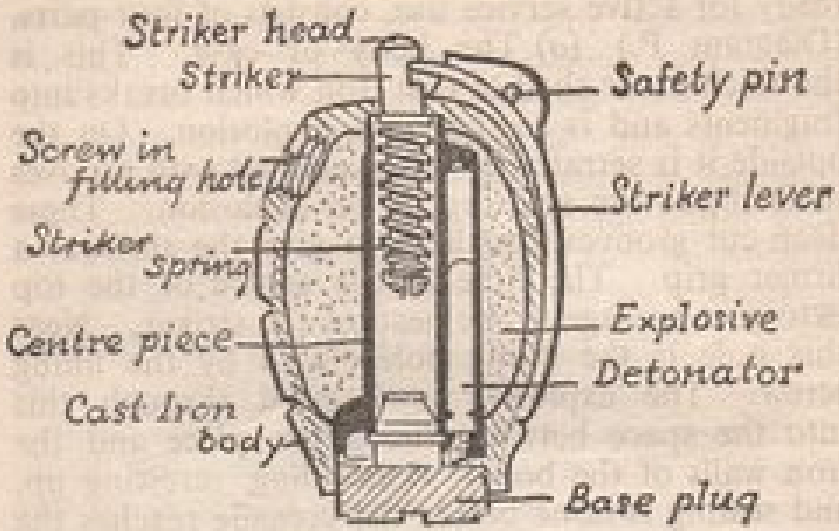
The Thompson Gun.—This sub-machine-gun, sometimes called the "tommy" gun, should be of double interest to the Home Guard, because it fires the same ·300 ammunition as the American "Springfield" rifle, and because enemy parachute troops are likely to be armed with something very like it. Its effective range is only sixty yards, but then it is deadly: the bullets will carry much further, but cannot be directed to a mark. The Thompson gun is light and short-barrelled. It is air-cooled and magazine-fed, but is operated by the recoil of the spent cartridge and a spring. There are two types of magazine: the box or squared, which holds twenty rounds, and the drum or disc shaped, which holds fifty. Both are fixed at

right-angles to the barrel. A moveable lever regulates whether single rounds or bursts are to be fired. The Thompson gun may be fired from the shoulder over the sights or from the hip, taking a general aim. It tends to pull to the right and high and this may be counteracted by fitting the sling round the left elbow. It is to be used for close-range work in street fighting or ambushes, and for ejecting the enemy from a trench. (Diagram O).

The "Mills Bomb."—Although it may be fired at longer ranges from a rifle, with special attachments and blank ammunition, the "Mills bomb" is primarily a weapon to be thrown by hand. Because its range is only twenty-five to thirty-five yards, the thrower should always be behind cover and should never throw the grenade where it is likely to injure any of his comrades; sizable fragments may travel as far as a hundred yards.

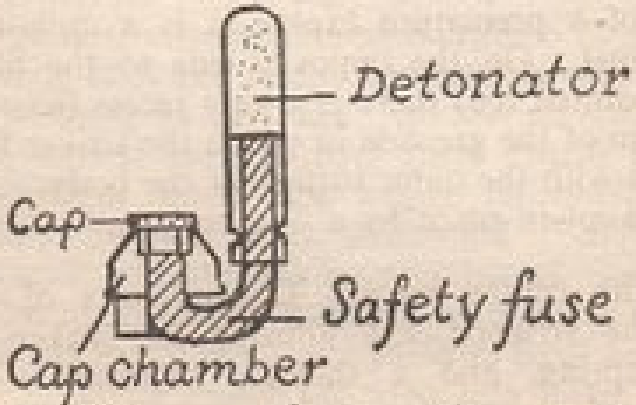
To avoid confusion in emergencies it is best to refer to this weapon and others like it as grenades rather than as bombs. The No. 36 grenade is a standard British army type of what is sometimes called (from its shape and outer marking) a "pineapple." Dummies, steel grey or painted white, may be safely used for practice throwing. The live grenade is varnished and black in colour, with a red band of paint round the top of the body and red paint also over the filling screw.

DIAGRAM P



Section of Mills grenade

DIAGRAM Q



Section of igniter set for "Mills type" grenade

The live No. 36 grenade, fully assembled and ready for active service use, consists of four parts. (Diagram P.) (*a*) The body or case. This is the thick outer shell of cast iron which breaks into fragments and is scattered on explosion. On the outside it is serrated or cross-hatched with grooves to facilitate the splitting up on explosion. These deep-cut grooves also help to give the thrower a firmer grip. The hole in the centre of the top is to give passage to the head of the striker. Near this hole is the filling hole closed by the filling screw. The explosive is inserted through this into the space between the centre piece and the iron walls of the body. The filling, screwing up, and sealing is done before the grenade reaches the men who are to use it. This does not mean that a filled grenade is dangerous to handle. There are several safety devices and, in particular, so long as the igniter set is not placed in the base, the danger of a premature explosion is a million to one against. On the opposite side to the filling screw (painted red) there is a long recess from top to bottom of the grenade in which the striker lever lies flush with the outer surface of the body. The lever is kept in place by a "safety pin."

(*b*) The centre piece. This consists of two parts, the striker-sleeve housing the striker and striker spring, and a shorter, narrower sleeve

alongside it, into which the detonator (part of the igniter set) fits. The base plug closes the centre piece at the bottom.

(*d*) The striker and striker spring. When the spring is compressed (as shown in Diagram P) the neck of the striker projects out of the top central hole in the body, and the end of the striker lever notches into it, holding it fast. At the same time the striker-lever is held fast in its groove (on the outer side of the body) by the "safety pin," or, if the "safety pin" is removed, by the tight-clasping fingers of the man who is to throw the bomb.

(*d*) The igniter set. (This is best studied separately in Diagram Q.) Without the igniter set the grenade will not explode. The igniter set should normally be kept apart from the grenade itself in a special container, and when handled only the cap chamber and the fuse should be touched. If grenades arrive with igniter sets already inserted, and are not to be thrown in the immediate future, the igniter sets should be removed by a man trained for the job. The operation of replacing them is known as priming. It needs skill, care and training. The base plug is removed from the grenade, the igniter set (held by the fuse) is inserted gently, the detonator

sliding into the narrower sleeve of the centre piece, and the cap-chamber into the striker-sleeve. The base plug is then screwed back into place and tightened with a special key.

The grenade is now primed and ready to be thrown. The thrower should hold it in his right hand, fingers tightly gripped over the striker lever. He should hold the "safety pin" with the fore-finger of his left hand, and, retaining his right-hand grip over the striker lever, pull the grenade to the right till the pin is free. If for any reason he relaxes his grip on the lever, he should at once hurl the grenade away from him to some place where it will not harm his comrades. When the grenade leaves the hand, the lever flies off, the spring forces the striker hard down on to the cap of the igniter set, and ignites the fuse which is timed to burn for seven seconds. At the end of that brief period the whole grenade explodes.

Throwing the Grenade.—There are two positions, in which a grenade may be safely and accurately thrown. The standing position is used from a trench or from behind a wall or breastwork. Don't forget to keep a tight hold on the striker lever, and obey all the instructions in the previous paragraph. Turn sideways, left foot well advanced, shoulder and eyes towards the target. Swing back

with the right arm fully extended, right knee bent, left arm extended in front and coming up naturally to keep balance. With a smooth, quick motion, using the power of the legs and shoulders as well as the arm, throw the grenade high up and forward, the right arm following through, the right leg straightening and the body bending forward naturally. The action is not unlike that of bowling at cricket, but without a run up.

The lying position. This is used from shallow trenches, ditches, or any sort of low cover. It begins and ends more or less prone, but the moment before the throw is made the thrower is in a half-kneeling position, one knee and the other foot on the ground. Whenever possible the thrower should lie with his face towards the target, both hands close together under his chin, his elbows out. When he has removed the "safety pin," he presses up quickly with both hands, retaining his grip on the grenade and the striking lever. With left knee close to the ground he swings his body back behind his bent right knee, the left arm coming up, naturally extended, to keep balance. The throw is made much as in the standing position, the weight of the body going into it, and the left shoulder and eyes facing the target. The left arm, thrust downwards, supports the body at the end of the throw.

In action, grenades are rarely thrown with the precision and neatness of a drill movement, but these are the fundamentals which should be used and practised as a basis. The thrower should, if at all possible, look at his target immediately before and during the throw, and often he can pause to watch the fall of the grenade. It should always be thrown high to reach a target not less than twenty yards away. It should be aimed to fall direct on the target and not to roll there after pitching. The thrower should learn the duration of seven seconds, and allow himself a margin off that to get his head and the rest of his body well down under cover before the explosion. Only experts should try the expedient (designed to prevent the enemy seizing the grenade before it explodes and hurling it back) of releasing the striker lever for two or three seconds before the throw is made.

The "Molotoff Cocktail."—Properly speaking, this is not a bomb or a grenade, as it can hardly be said to explode. It is made from a glass bottle, pint size or larger, filled with a mixture of petrol, paraffin and tar or pitch. Diamond scratchings on the body or neck of the bottle prepare it for a quick, easy breakage on impact against a hard surface. The neck is corked, but between cork and glass the end of a piece of flannel is inserted. The

flannel should be about an inch wide and about six inches long, four to five inches protruding loose. Immediately before throwing, the flannel is dipped in a can or biscuit lid of paraffin and thoroughly soaked. The end of the soaked flannel is then lighted from a lamp which will give a good flame in a strong wind. The "molotoff" should then be thrown within five seconds, although no great harm should follow if it is not. An alternative method of ignition is by a paper sheaf, containing matches, which is fastened to the corked neck, but this is not likely to be reliable in wet weather.

The "molotoff cocktail" does not explode. It is intended to be thrown against a hard surface, the top of a tank or other motor-vehicle: when the bottle breaks the mixture inside flows out, is immediately ignited by the burning flannel, and spreads, still burning. Used against the top of a tank, the burning mixture should with any luck pour through some of the vents and louvres, and force the unlucky crew to come out. The "molotoff" is not likely to be of much avail if thrown under motor-cycles and cars unless they are at a standstill. It should be used at short range, five to fifteen yards, and to secure accuracy it should be lobbed or thrown underhand, and high into the air so that it comes down hard; otherwise the bottle may not break or may roll off before the

burning liquid has poured out. A single "molotoff" is hardly likely to be effective: three at least should be thrown on to even a small, light tank.

CHAPTER VI

THE USE OF THE RIFLE

THE rifle is, and for some time is likely to remain, the principal arm of the L.D.V. Because one machine-gun, light or heavy, can fire as many bullets as sixty or a hundred riflemen, this may seem a serious disadvantage. But there is another side to the picture. If and when invasion comes, there will be more British machine-guns to repel it than the invaders are likely to bring with them, even though few of these machine-guns are in L.D.V. hands. Second, if every L.D.V. had his own Bren or Lewis gun, the greater part of the population would have to be employed making the necessary ammunition: machine-guns can use up millions of rounds in a very short time, and we can be sure that German invaders, with their supplies always uncertain, will always have to think twice before they press a machine-gun trigger. Third, while the machine-gun has the advantage in attack, it may be more vulnerable in defence than the rifle: a single shell or hand-grenade can put only three or four riflemen, properly disposed, out of action, leaving dozens to continue firing, while a well-placed burst, or even a rifle shot, may well

make a machine-gun useless and so reduce the enemy fire-power by thousands of rounds a minute.

The rifle then should not be regarded as an obsolete weapon until such time as it is possible to equip every other infantryman with a machine-gun and, what is even more important, with the necessary ammunition to keep it in action. The construction and mechanism of the rifle are dealt with on pages 79–86.

But to understand the working of a rifle is by no means the same thing as to be able to use it to the best advantage on active service. The L.D.V. to whom the rifle comes as a strange weapon is advised to read pages 79 to 86 carefully, and then to go over them in detail with his rifle in his hands, sliding the runner of the back-sight to various ranges and taking aim, removing the magazine and replacing it, loading and reloading (always with the muzzle pointed to the ground a few feet in front of him), and releasing the safety catch in the same movement as he cocks the rifle by sliding back the bolt and running it forward again. When he is sure he understands the simple principles on which the rifle works, and can load, aim and press the trigger without thinking about what he is doing, he is ready to handle the rifle as a self-contained object which he can turn at any moment into a useful weapon for defence and attack.

But it will still, in all probability, seem strange, heavy and clumsy in his hands. He must learn to handle it with confidence and skill, as unconsciously yet as precisely as he handles a knife and fork or a tankard of beer. The rifle, like these other utensils, is a means to an end. Facility in handling it can come only from practice, and for this purpose experience has proved that certain exercises are invaluable. They are the elements of infantry arms drill, and, as the L.D.V. is not to be a ceremonial soldier, he need not proceed beyond the elements..

Of formal arms drill he need only know how to "slope arms" and to "order arms." These will get him through most of the formalities he is likely to require in a corps more notable for its utilitarian and "matey" outlook than for spit and polish. Also, for some mysterious reason, probably psychological, these are exercises which give especial confidence to the mind and the muscles in the handling of the rifle. The L.D.V. need not therefore fancy that he is wasting his time in learning them.

"*Slope Arms.*"—When he "falls in," or takes his place in single, double or triple line with his comrades, the L.D.V. should adopt the "stand easy" position, with his feet about eighteen inches apart, the butt of his rifle resting on the ground

beside his right foot, and his hand gripping the woodwork just below the top sling-swivel. He may talk and move any part of his body except his feet.

On the first word of command, he should face his front in an alert but not too rigid a posture, and hold his rifle sloping forward at the natural angle between the butt (resting beside his right foot) and his hand gripping the stock below the sling-swivel. At the word "Attention" (usually abbreviated to "Shun" or a hiccough) he moves his left foot in alongside his right, the heels but not the toes touching, and at the same time draws his right hand, still gripping the rifle, to his side.

From this position (known as "order arms") most of the movements of arms drill begin. For "slope arms" no move is made until the second word of the command is spoken. The operation is completed in three sharp movements, with a slight pause between each. The first is to throw the rifle upwards almost vertically at the right side, releasing the grip and catching the rifle again with the left hand on the woodwork just below the top sling-swivel, and the right hand on the small of the butt, just behind the trigger guard. It sounds like a juggling feat, but it can be learned even by naturally unhandy persons. The eye should not be allowed to look downwards or sideways while this is done: the throw and the catch should be

performed by judgment without sight. This is probably the most important movement in arms drill, because the practice of it teaches the rifleman the feel, the weight, and the balance of his rifle, and in time he learns to use it as unthinkingly but surely as he swings himself on to the saddle of a bicycle or moves the gears and clutch pedals of a car.

The second movement of "slope arms" is to swing the rifle across the body, keeping it vertical most of the way and using the right hand, on the small of the butt, to take most of the weight, until the rifle rests on the left shoulder, with the left hand gripping the brass heel of the butt, fingers uppermost, and the left forearm and upper arm forming a right-angle. The right hand is retained for a fraction of a second on the small of the butt, and the fingers can be released from their grip and extended there if it is desired to impress anyone with an effect of smartness. Then the right hand is drawn away sharply to the right side, completing the third movement of the "slope arms."

To return to "order arms," three movements are again needed. The rifle is first pulled straight down by the left hand at the side of the body, the right hand coming across the chest to grip the stock above the top sling-swivel; next, the right hand carries the rifle across to the right side and holds it with the butt an inch above the ground,

the left hand steadying it at the muzzle: finally, the rifle is lowered, and the left hand returns to the left side.

Saluting.—First, a note about saluting. The familiar military salute, with the hand (always the right hand) to the forehead, is not given when a soldier is carrying a rifle, riding a bicycle, or without a hat. The L.D.V. who is hatless should merely stand to attention until his salute is returned, and if it is not noticed after a few seconds, he should quietly proceed about his business. If he is riding a bicycle, he can give his head a sharp turn to the left or right, as may be. The only salute required from a man with a slung rifle and on duty is the heels clicked together in the position of "attention." Military hats outdoors are not supposed to be removed on duty, and on other occasions only for wiping away sweat from the forehead or holding the kitty for a card game.

Rifles are examined by patrol-leaders and other officers to make sure they are clean, in working order, and unloaded. This should always be done before a guard is mounted and before any arms drill, firing or other exercises are begun. Two principal movements are required. From the "Order arms" position, on the command "For inspection port arms," the rifle is thrown up diagonally across the body, so that the muzzle is

level with the chin and the butt with the right hip. The left hand catches the stock underneath at the point of balance, the right hand closes on the small of the butt. Immediately, and without further orders, the safety catch is released and the bolt drawn back. On the command "Examine arms," the left foot is moved forward and the left hand extends the rifle, at the same diagonal angle, also forward. The right thumb slides into the breech just behind the chamber. The Patrol-leader can then look down the barrel from the muzzle, light being reflected on the thumb nail (which, like the rifle, should be clean) so that he can inspect the rifling. If no further order is given, the rifleman returns to "Order arms": the bolt is closed, trigger pressed, safety catch drawn back, and the right hand goes to the top sling swivel to lower the rifle to the right side.

The only other arms drill order which need be considered is the "trail arms." This is achieved in one movement from the "slope arms" by lifting the rifle from the shoulder with the right hand and dropping it to the side, where it is held horizontal and pointing forward. From the "order arms" position the rifle is thrown upward and slightly forward and caught again in mid-air with the right hand. The grip for the "trail arms" should be between the back-sight and the breech, as what is known as "the point of balance."

Loading.—To load a rifle (when the rifleman has become expert enough not to have to hold the muzzle downward), the rifle should be thrown upwards to the "port arms" position and the breech opened. The cartridge clips, of five rounds each, can then be pressed down into the magazine, the metal clips or chargers, themselves automatically falling to the ground as the charger guide obstructs them. Unless the enemy is actually in sight, the bolt should not be allowed to run the last round forward into the chamber: the last round should be pressed tight down and the bolt slid over it. This obviates the risk of an accidental or premature discharge, as the rifle, though fully loaded, cannot be fired until the bolt has been drawn back and forward again. If the tenth round will not go easily into the magazine, don't waste time, but return it to the ammunition pouch or the pocket. The loading operation is easily and obviously adapted to the kneeling and prone positions.

Carrying the Rifle on Guard Duty.—The correct way to carry a rifle on any sort of formal guard duty is at the slope, but for most L.D.V. purposes this is not required. The slung rifle, suspended over either shoulder with the loose sling to the front, is most in favour. If the rifle is slung in wet weather and has no protection for the metal parts the least the L.D.V. can do to keep rain out of the barrel is to carry it butt upwards. But the

slung rifle has, in any case, two disadvantages: it tires the shoulder, for the sling soon cuts into the skin, and some time is wasted getting the rifle, in an emergency, into position for firing or challenging.

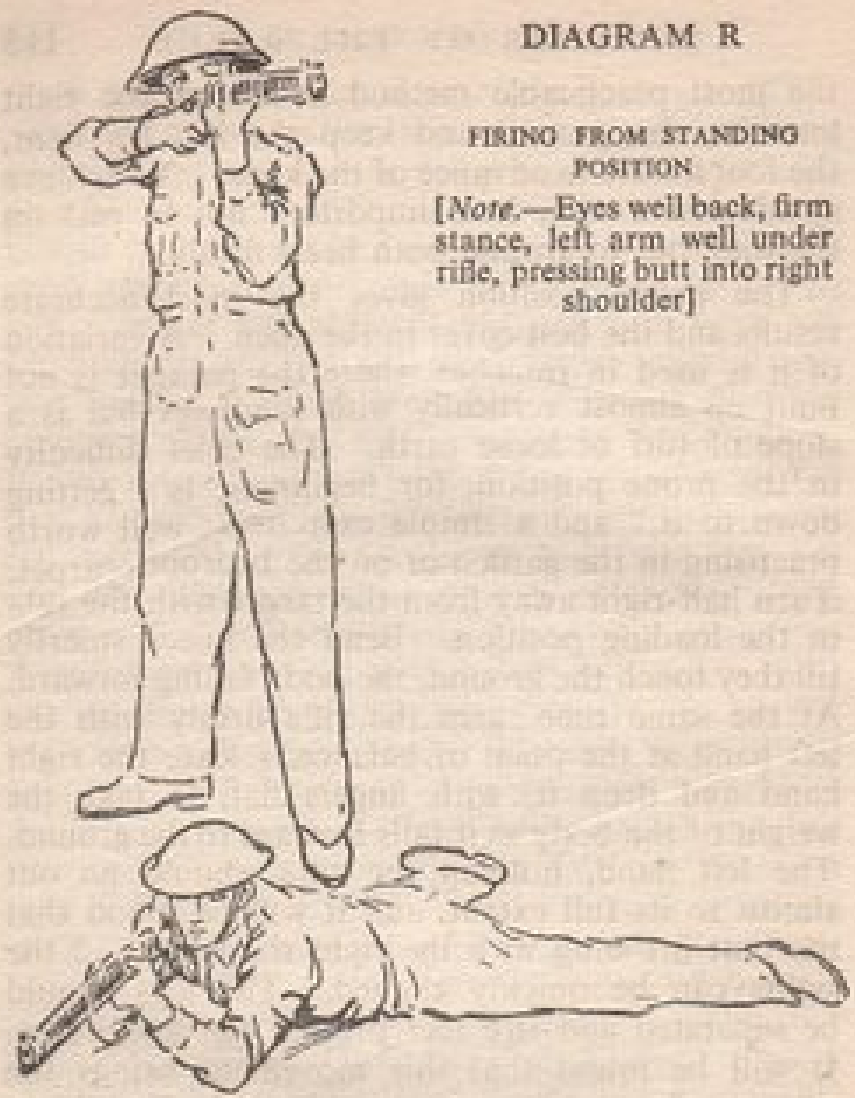
The crook-of-the-arm carry is a most useful alternative. This is not well known, and has no place in drill-books, but it will be found more confortable and practical. It is said to date from the American Civil War. The rifle is held diagonally across the front of the body, resting on the crook of the left arm, with the left hand gripping lightly on the small of the butt or round the bolt lever and trigger guard. The rifle can be carried like this for hours without fatigue, and the position is impracticable only on the march or in a very narrow trench or breastwork. Moreover, as the muzzle end of the stock rests against the muscles of the left arm, a slight jerk of that arm throws the rifle forward where it can be caught by the left hand, the right gripping the small of the butt, and in a fraction of a second the sentry is in position to challenge or to fire.

Firing Practice.—There are three main positions from which a rifle is fired: standing, kneeling and prone. The niceties can only be taught by personal instruction, but the fundamentals should be quickly acquired from a few simple instructions. In each position the L.D.V. should set out to provide himself with fair comfort and steadiness of aim.

The standing position is used for firing from trenches, breastworks and walls, and also occasionally for taking a quick shot in the open during an advance or withdrawal. The body should face half-right to the line of fire and the left foot should be placed firmly about eighteen inches away from the right and roughly towards the target. The rifle is then raised from the loading position till the butt fits snug and tight into the hollow part of the right shoulder. The left hand, gripping the stock under and behind the back-sight, should be used to keep the rifle steady and pressed into the shoulder, and as nearly as possible the left elbow should be directly *under* the rifle. Practice will soon take away any discomfort. The right hand remains on the small of the butt, immediately behind the trigger-guard, where the forefinger can easily close over the trigger, until the sights are aligned on the mark to be shot at. The head may be bent to the right, but not forward, the cheek touching the butt, and the right elbow raised outwards to shoulder level. Unless the head is kept well back, the sights may be seen blurred. (Diagram R.)

The kneeling position is used for firing from behind or through hedges, out of ditches, round low walls, heaps of gravel or hummocks, and sometimes in the open. Either knee or both knees may be used for the kneeling. On the whole,

DIAGRAM R



FIRING FROM STANDING POSITION

[*Note.*—Eyes well back, firm stance, left arm well under rifle, pressing butt into right shoulder]

FIRING FROM LYING POSITION

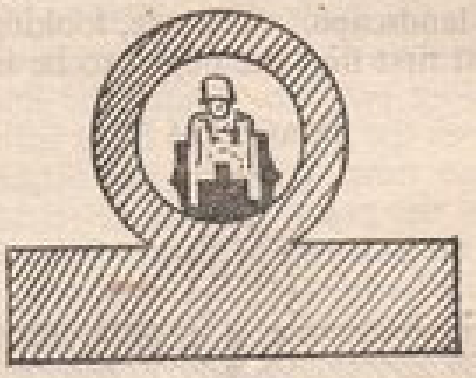
[*Note.*—Eyes well back, left wrist well under rifle, hips flat, legs apart and at angle to direction of fire, heels flat]

the most practicable method is to put the right knee on the ground and keep the left leg bent, the foot a little in advance of the knee. To achieve steadiness of aim, it is important not to rest on the toes, but to ground both heels firmly.

The prone position gives the most accurate results and the best cover in the open. A variation of it is used in trenches where the parapet is not built up almost vertically with sandbags but is a slope of turf or loose earth. The chief difficulty in the prone position, for beginners, is "getting down to it," and a simple exercise is well worth practising in the garden or on the bedroom carpet. Turn half-right away from the target with the rifle in the loading position. Bend the knees smartly till they touch the ground, the body falling forward. At the same time, grip the rifle firmly with the left hand at the point of balance, release the right hand and drop it, with fingers flat, to take the weight of the body as it falls forward to the ground. The left hand, holding the rifle, should go out almost to its full extent, and it will be found that the butt fits snug with the right shoulder, and the sights can be quickly aligned. The legs should be separated and the feet pressed out and down. It will be found that this movement brings the rifleman flat on the ground, his body slightly at an angle to the line of fire and supported by the legs and belly. The chest and head are slightly

raised from the ground by being propped on the elbows, and, as before, the left hand grips the rifle, from underneath, behind the back-sight, while the right hand is on the small of the butt, behind the trigger guard. In this position it is not necessary for the left elbow to be exactly under the rifle, but the two elbows should be as near together as comfort allows. It is important to keep belly, legs and feet pressed to the ground to give steadiness. (Diagram R.)

DIAGRAM S

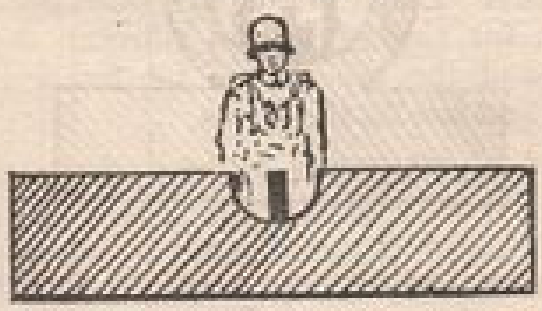


CORRECT AIM THROUGH APERTURE BACK-SIGHT

Aiming the Rifle.—The rifle can easily be loaded and reloaded from any of these positions, as described in this section on page 111. Aiming must always precede firing. Unless it is done carefully

and coolly the shot will be wasted. And aiming is futile until the safety-catch is released and the runner of the back-sight adjusted if the range exceeds two hundred yards. Aiming with the P.14 rifle, through the battle-sight aperture at the most practicable ranges (under five hundred yards) is easy enough : a circular picture is obtained through the aperture and the fore-sight is automatically centred by the eye under the target (Diagram S). With the S.M.L.E. and most other rifles there is no aperture to select a marksman's framed picture out of the landscape. The eye, looking along the barrel, must first find the object to be fired at, and

DIAGRAM T



CORRECT AIM OVER " U " BACK-SIGHT

then get the upright leaf of the fore-sight dead in the centre of the " u " of the back-sight, with its top level with the two shoulders of the " u " and

directly under the middle of the base of the target (Diagram T). Practice, however, again removes most of the difficulties.

A man, a body of men, a building or a vehicle, considered as a rifle target, should be thought of as a small clock face. An L.D.V. thoroughly familiar with the idiosyncrasies of his own rifle will be able to obtain more accurate results by aiming at different portions of this imaginary clock face, as ten o'clock or two o'clock. But for most aiming purposes the fore-sight should be seen as directly under the middle of the base of the target, i.e. at six o'clock. Aiming at a man within likely range of a rifle, the six o'clock mark should be taken as not his feet but his belly. Either one eye or both eyes may be kept open for aiming, as the rifleman finds most effective, and the eye should be focused on the fore-sight and not on the target.

Aiming can always be practised with an unloaded rifle, but it is as well to make sure it is unloaded. When that point is established, by examining the chamber as well as the magazine, a kind of useful firing practice can also be obtained by pressing the trigger. This kind of silent practice, as well as actual firing practice, comes nearer to "the real thing" if, before the rifle is brought to the shoulder, the rifleman runs about a good deal to get himself hot and out of breath. Steady aiming is not so

easy in such circumstances, but it can be achieved. If possible, the aim should be tested by another man peering through a metal aiming disc.

Pressing the trigger.—Even when the command "rapid fire" is given, the trigger should not be pressed until the sights are in alignment on the target and the rifle is held steady. One accurate shot is worth any number blazed away in mere enthusiasm. Firing is done by advancing the forefinger of the right hand round the lower part of the trigger, so that the first joint presses it back and slightly upward. On most rifles it will be found that the trigger has a double pull; the first pressure has no apparent effect. After that, a lesser resistance will be met with, and when that is overcome the striker is released, the cartridge exploded, and the bullet leaves the barrel. The correct method of pressing a trigger is described as "squeezing"; it should be a firm, decisive movement but without any jerking which might upset the aim. It can be thought of as closing the forefinger in to join the rest of the fist. The first pull should be applied while the sights are being aligned on the target, and the second as soon as the rifleman is sure he has obtained a steady aim on the object he desires to hit. The breath should be held during the act of pressing the trigger, but after breathing *out*, not in. While it is futile to fire before the rifle is absolutely still and the correct aim has been

obtained, to delay the shot after that usually mean a blurring of the eyes and mental indecision. Constant practice alone will teach the rifleman to recognise, and act on, the first fraction of a second when a shot can effectively be delivered.

Distance judging and Fire orders.—It will be found that most untrained men are unable to judge distances with accuracy or consistency. Practice and the checking of estimates is the only way to reduce the margin of error. Probably the best way is to teach every man what a hundred yards stretch straight in front of him looks like in different landscapes, and how a further hundred yards, and then another, is foreshortened by perspective. He should also learn the apparent size of a man, standing, kneeling or lying prone, at different range up to a mile. With this as a basis, he can use one of two methods of estimating any given distance. He can put a maximum and a minimum estimate on it (and if possible take other men's opinion) and then strike a balance between them. Or he can fix his eye on what he takes to be the half-way point and then estimate the distance between that point and himself, not forgetting afterwards to double the result. Objects are likely to seem nearer than they actually are in very clear weather with high clouds or none at all, when snow is lying, and when the observer has the sun behind him or is looking over a lake or a plain or a deep

valley. Objects are likely to seem farther away than they really are in misty or heat-hazy weather, when they stand in shade on a sunny day or are difficult to pick out of the background, and when the observer is himself placed below normal eye level from a standing position.

This estimation of distance is most important for patrol leaders and other commanders who may have to give fire orders to their men. Whenever possible a party of men, even if it numbers only four or five, should open and cease fire, and direct its fire, in accordance with commands. The patrol leader should first give the range, and then name and if possible point out the direction of the object he wants to be fired on. If it is at some distance exceeding four hundred yards, he may need to use the "clock and finger method." For this the hand is held out at arm's length in front of the eyes, and two such hand-widths should be taken as covering the breadth of an imaginary clock face centered on some prominent object, a church tower or a barn, in the landscape. The fire direction would then run like this: "Range eight hundred yards, Church tower is centre of the clock. Three fingers to the right of it. Five o'clock. A hedge. Aim at the men moving there. Five rounds—fire."

This method of giving fire orders, however, is apt to confuse men who have not had a long and

thorough training in it, and in any event it need not be used for the short ranges at which the L.D.V. can mostly be expected to work. But even at five hundred yards or less, the patrol leader would do well to make sure that his men fire to his command, and, if he can divide them into smaller parties, each with different targets to aim at, all the better. The command "rapid fire" should be reserved for occasions when the enemy is at close quarters, or when it is desirable to head the enemy off quickly from some fairly distant objective. For the most part, the patrol leader will probably find that his difficulty is to slow down and make accurate his rate of fire, rather than accelerate it.

Taking Cover.—There are two kinds of cover. One protects from observation, the other from enemy fire. Often, of course, both kinds of protection are afforded by the same object. Cover is easy to obtain when a man or a detachment is stationary: not so easy when a movement is in progress. It will pay to make a preliminary survey of the "home ground" with a view to finding cover from various directions, including the air. In the open, the most readily accessible cover is obtained by adopting the prone firing position and spreading the men out at intervals as wide as the ground and the necessity of maintaining quick communication will allow. Except in strong points "bunching" should never be allowed. Even

attack from the air, as the Dunkirk beaches proved, loses much of its effectiveness against detachments well spread out.

Ditches and inequalities of the ground, even molehills, all provide better cover from observation, and from fire, than is immediately apparent. And a golden rule is: when not ordered or compelled to move, keep perfectly still. It is a hundred times easier to spot a man who moves about than one who keeps his place and reduces his movements to the minimum necessary for firing his rifle. No one should be permitted to stand against a skyline, a building or a wall. A rise of ground, a hedge or a wood, however, provides a background into which standing or kneeling figures easily merge. Having obtained cover, the rifleman should always fire round it and not over it. When he moves, he should move in a crouching position if he has any reason to suppose the enemy is within firing or sighting distance.

Covering fire.—In the new sort of warfare, infantry can expect to have to move under fire without the protection of an artillery or machine-gun barrage In the greater part of this country, where fields are small, such movements should be carried out in the shelter of ditches, hedges, walls and lanes. Where fields are large, or on the bare slopes of downs, the safest way of moving over

open ground is for two patrols to work together, or for one patrol to split into two halves. Let us assume that A and B patrols have to advance over very large fields. It will be done by four-second rushes, in a crouching position, the patrols moving alternately forward, spread out with a five-yard gap between each man. Between the two patrols there should be an interval of not less than twenty yards. While B patrol runs forward, A patrol, on its flank, stays still, the men in the prone position, and trains a steady fire on the enemy which, at the least, should have the effect of keeping him immobile and under cover, and preventing him shooting undisturbed at the moving men. As soon as B patrol has completed one rush, it lies prone and in turn opens fire, while A patrol rushes forward. And so on. A withdrawal movement can similarly be carried out.

A retreat down a road should always be made with a picked rearguard to halt at every bend and hold back the enemy with their fire. And in any advance, except over very flat country, scouts should be sent ahead and to one flank, to open fire if necessary or to fall back and report without disclosing themselves to the enemy. Both scouts and rearguard should be chosen for fitness, good shooting and level-headedness, and they should, if circumstances permit, be equipped with some means of quick transport.

THE LAST WORD

It is suggested that the substance of this brief postscript be got by heart.

The main duties of the Home Guard are :

1. Guarding important points.
2. Observation and reporting—prompt and precise.
3. Immediate attack against small, lightly armed parties of the enemy.
4. The defence of roads, villages, factories and vital points in towns to block enemy movements.

Every L.D.V. should know :

1. The whole of the ground in his own district.
2. The personnel of his own detachment.
3. The Headquarters of the detachment and where he is to report for duty in the event of an alarm.
4. What the alarm signal is.
5. The form of reports concerning enemy landings or approaches, what the reports should contain, and to whom they should be sent.

6. The personnel of the civil defence services, police, wardens, A.F.S., etc., in his own district.
7. The uniforms and badges of any units of the regular army stationed near at hand, in order to be able to spot enemy agents in disguise.

In the event of an alarm, the L.D.V. might use this check list before he leaves his home or his work. He should take with him :

1. Full uniform, including steel helmet and warm underclothing.
2. His arms and ammunition.
3. His gas-mask.
4. Rations for twenty-four hours.
5. A filled water-bottle.
6. Identity cards.
7. (If a smoker) pipe and tobacco or cigarettes and matches.
8. Two handkerchiefs.
9. A supply of money.
10. Bicycle (or other means of transport as ordered) in good working order, including front and rear lamps.

All these should habitually be kept handy, ready for an emergency.

TO H. Q HOME GUARD. THE PRIORY. HAMPTON

FROM 'C' PATROL LEADER BROWN | 22-8-40 | 8-52 p.m

PRIORITY	AAA	ENEMY	PARACHUTE	TROOPS
NUMBERING	ABOUT	FORTY	OBSERVED	LANDING
EIGHT	FIFTY	PIP	EMMA	ON
HILL	THREE	MILES	EAST	HAMPTON
PARISH	CHURCH	E 578	N 4820	AAA
LANDING	CONTINUES	AAA	AM	OBSERVING
AAA	FROM	OLD	BRIDGE	POST

Diagram A.—Specimen Message from Observation Post.